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MURRAIN IN CATTLE.

A GENTLEMAN in Rossville, Indiana, asks for information concerning "Bloody Murrain in Cattle," and desires a remedy for the same. It is a disease of various degrees of malignancy, which assumes at different times and places many types, from that of a mild distemper to an epizootic plague, characterized by ulcers, pustules, and gangrene, from which recovery is hopeless. Bloody evacuations from the bowels, or kidneys, or both, are but symptoms of the malady,—not the disorder itself, in a pathological point of view. Murrain was well known to the ancients; and it has never ceased to prevail to a greater or less extent in all civilized nations. It was one of the plagues that fell upon Egypt before the exodus of the Israelites.—"If thou refuse to let the Hebrews go, and wilt hold them still, behold the hand of the Lord is upon thy cattle which is in the field, upon the horses, upon the asses, upon the camels, upon the oxen, and upon the sheep; there shall be a grievous *Murrain;* and the Lord shall sever between the cattle of Israel and the cattle of Egypt; and there shall be nothing die of all that is the children's of Israel." This is perhaps the oldest historical allusion to this complaint, although it is described by HOMER, and subsequently, by HIPPOCRATES, PLUTARCH, LIVY and VIRGIL. All ancient and modern authors who have treated of the subject, lead us to infer, when they do not expressly state the fact, that the disease has its origin either in marsh miasma, or other poisonous elements developed by vegetable decomposition. In Italy, Greece, Spain, Egypt, and in all those districts which have been most subject to plague, yellow fever, and ague and fever, among the human species, Murrain in cattle has most prevailed. New England and New York, being little subject to pestilences of this character in the *genus homo*, from the general absence of the causes that produce them, Murrain, as a malignant distemper, is little known in the region named. In the more fertile States at the West, and Southwest, where vegetation is more luxuriant, and surface water more stagnant, both man and beast are afflicted to a greater degree with miasmatic diseases. To do full justice to this theme, we should require the space of a volume of our paper instead of the one or two pages we can devote to it.

Many of the veterinary colleges now existing on the continent of Europe were founded in consequence of the immense losses sustained in the last century by Murrain in cattle. Like cholera, yellow fever and milder bilious disorders, Murrain obeys great natural laws which are very imperfectly understood, if they can be regarded as known at all. In the fourth century, all Europe was desolated by this distemper among cattle; in the ninth century, the extensive dominions of Charlemagne were scourged in a similar manner; and in the sixteenth century, two visitations of Murrain desolated the states of Venice. During a period of twelve years, commencing in 1745, there was a continued prevalence of Murrain in Britain, which swept away prodigious multitudes of cattle.—In one year alone 30,000 died in Cheshire, and 40,000 in Nottinghamshire.

Modern improvements in agriculture by *drainage*, thorough tillage, and the better condition of all grazing lands, have done much to prevent the frequent recurrence of this pestilence among the bovine genus of domestic animals; and *prevention* is the true remedy to be commended to the best attention of the enterprising stock-growers of the West. Cattle running much in the woods, in swamps, and never or rarely salted, are most likely to have the Murrain.—YOUATT gives a lengthened description of the usual symptoms of this disease, which we deem it unnecessary to repeat. In the first stages of the complaint, he recommends bleeding and cathartics; and subsequently aromatic anodynes, good nursing, and nothing more. Boils and purulent tumors often appear; the breath is offensive, and the poor beast rarely recovers. A well-cooked gruel, made of corn meal, would be at

once an aperient and nourishing. Separate the diseased from the herd, and see that the latter are regularly salted. Treat cattle having bloody discharges on the same principles you would a person afflicted with dysentery. There is no specific applicable to such cases.

sometimes till December. As a general rule, early sowing gives the best crops, other things being equal. Every farmer should use a drill who can conveniently do so; for less seed will answer his purpose; it can be covered at a more uniform depth; and with a good machine, it will be more evenly distributed over the

HINTS FOR SEPTEMBER.

In the Northern, Middle and Western States, it is the common practice to sow winter wheat in the month of September; in the cotton-growing States, seeding is delayed till October and November, and

ground. Wheat threshed with a six or eight horse power apparatus is usually so much broken that many farmers in Western New York sow two bushels per acre, and few less than one and a half bushels, when not put in with a drill. Such as use that implement find four or five pecks sufficient to seed an acre.

In some districts, corn will be ready to cut up at the roots by the last of this month; and wherever fodder is an object, the operation should be performed before frost shall damage the green plants. After the kernels are well glazed, the grain ripens without much, if any, shrinkage, where corn is cut at the ground and set up in small stacks to cure. These ought not to stand too long single, and exposed to the weather, for such exposure to the fall rains injures the stalks, and sometimes the corn. Forage of all kinds needs shelter; and it is the part of wisdom to have a plenty of barn and shed room on every farm. Husk corn early, and put up the stalks and husks in good stacks, where they cannot be housed.

Long-continued dry weather has nearly destroyed the potato crop in the vicinity of Rochester, which is a pretty serious misfortune to both cultivators and consumers. Such as have fair crops of this important vegetable, will do well to take the best of care to save them from rot, or injury of any kind. They will doubtless sell high before the next harvest.

Apples are not very plenty this year; and the crop is likely to pay liberally for all the attention bestowed in saving them in good condition. Every year's experience serves to satisfy farmers more and more of the importance of fruit-culture. Skill and capital are, however, quite as necessary in this branch of rural industry as in any other. Good fruit of all kinds sells readily and at remunerating prices. Give your fruit trees the benefit of some manure, and strengthen the soil by a dressing of lime and ashes. Apple orchards in particular are often cropped with grain or hay to the injury of the land; and as the annual growth of leaves and fruit rarely rots under the trees, the soil needs considerable manure to maintain its fertility.

HOW TO CONVERT STRAW INTO MANURE.

Having spent some time in the country among wheat-growers, and noticed numerous huge piles and stacks of straw, our attention has been called to the ways and means best adapted to transform this product into manure. Its speedy decomposition is the object to be attained, where one does not wish to feed straw to his stock, nor use it for bedding. It is proper to remark that by many good farmers it is often distributed over land about to be plowed, and raked into the furrow and covered with earth as the plow advances. On clay land, this practice is judicious; for straw rotted in this way renders a compact soil more pervious to rain water and salutary atmospheric influences. On light loams, sandy and gravelly land, straw covered with earth in the manner indicated is of doubtful utility; for being too open already, it needs more compact fertilizers, and rolling, or treading by sheep or young stock.

To hasten the decomposition of straw, care must be taken not to permit the water that falls on the mass in rain or snow to run off. Dry straw decays very slowly, as is seen in the durability of thatched roofs on sheds, barns and houses. To rot soon, straw must be kept moist; and the breaking down of the tissues and stems of this and other cereals, like large corn-stalks, is promoted by adding either quick-lime, or that which has been recently slaked, to the mass. Both lime and ashes favor the solution of the hard, glass-like flint so largely deposited in the culms of cereal grasses, which gives them strength and durability. Water charged with carbonic has its solvent power much increased—robbing silicic acid of its bases to form carbonates.

By tramping straw in a yard with stock, breaking it up, and adding to it the liquid and solid droppings of domestic animals, it rots sooner than when it lies in a heap undisturbed. The dung of cattle, sheep and swine yields both ammonia (a powerful alkali) and free carbonic acid, which assist the rotting of straw. Hence, where one raises a good deal of grain, he should bed all his stock well during the winter. A correspondent, writing from Wayne county, Ohio, suggests that gypsum as well as lime is an important ingredient in "the rotting of whole straw." Such is not the fact. It improves the manure, but does not aid in the decomposition of straw.

SPRING AND RIVER WATER—IRRIGATION.

Spring and river water hold in solution every thing of a soluble nature contained in the ground from which agricultural plants derive their sustenance; for the water that flows from springs and in rivers has washed over or passed through a good deal of earth. If this abound in the elements of crops, water that has washed it will contain them; so that the careful analysis of clear spring and river water gives us a valuable insight into the natural resources of the soil. A few analyses of natural waters, taken from reliable works, will show how intimate is their relation to agriculture as a scientific profession.

A gallon of fresh spring water from Sycamore Hill, near Cincinnati, or within the limits of the city, gave Mr. Locke (a chemist of that city) the following results, on analysis:

Chloride of sodium,	.1425	grains.
" calcium,	2.1153	"
" magnesium,	.7915	"
Sulphate of lime,	10.5500	"
" magnesia,	1.1968	"
Silicic acid,	.7208	"
Carbonate of lime,	15.0067	"
" magnesia,	4.5553	"
Total of solid matter,	35.0788	"
Carbonic acid gas,	39.1978	cub. in.

Of the 35 grains of solid matter dissolved in a gallon of spring water, it will be seen that 15 are carbonate of lime (common limestone), and 10.55 gypsum, or sulphate of lime. It is plain that rain water in passing from the surface of the ground to this spring had percolated through earth that abounds in salts of lime. Suppose this spring water, after flowing several hundred miles in a river toward the ocean, should be pumped up to irrigate a field which lacked lime. If not much more diluted than when it left the fountain, a few thousand tons would impart to the needy soil in great abundance, every ingredient that the river and spring water held in solution. Sulphate of magnesia (epsom salts) and common salt (both valuable fertilizers) would be amply diffused through the irrigated earth. Had several gallons instead of one been evaporated, we doubt not salts

of potash, and phosphate of soda or lime, would have appeared among the minerals found.

Geologically speaking, Cincinnati stands in a basin, which has lime rock over much of its surface; while the extreme fruitfulness of the region is proverbial, securing an unparalleled growth to perhaps the largest inland city on the continent. An imperial gallon of the water supplied by the Hampstead Water Works for the use of the city of London, as given by Mr. MITCHELL, gave 40 grains of dry matter, having the following constituents:

Carbonate of lime,	3.83 grains.
" magnesia,	3.41 "
Phosphate of lime,	0.28 "
Sulphate of lime,	4.42 "
" potash,	3.28 "
" soda,	4.81 "
Chloride of sodium (common salt),	17.76 "
Silica (soluble),	0.28 "
Crenic acid,	0.17 "
Apocrenic acid,	0.08 "
Other organic matters,	1.72 "
Oxides of iron and manganese,	traces.
	40.04

By properly using the water above analyzed for irrigation, every imperial gallon would impart to the soil 17¾ grains of common salt. It holds in solution every element (organic and inorganic) which is necessary to form the farmer's crops; but not in due proportions. When searched for with due care, river water is almost always found to contain both ammonia and nitric acid. The mud sediment of the Merimack, deposited in the freshet of July 7, 1839, gave Mr. DANA, of Lowell, 8.80 per cent. of soluble organic matter, and 6.30 per cent. of insoluble organic matter. This sediment also contained 3.20 per cent. of gypsum, and 0.60 per cent. of phosphate of lime. The Merimack river flows from a granite region; and yet its washings from the earth gave 0.51 per cent. of lime and 0.10 per cent of magnesia.

The facts already cited are deemed sufficient to satisfy the reader that both river and spring water dissolve out of the earth its essential food of vegetables; and we proceed to consider the practicability of supplying this food to cultivated plants. In some way the water which contains it must be made to flow over the ground to be improved. In many places this may be done by turning small streams of water out of their natural channels for a few miles (more or less according to the circumstances of each case), into ditches and canals made for the purpose. Irrigation of this cheap kind is practiced extensively in Europe, where it is not so necessary as it is in the hot, dry climate of the cotton-growing States. With suitable reservoirs, and the use of steam power, this system of manuring is capable of almost universal adoption. It will require some capital at the beginning to put up the needful apparatus; but if the money be wisely expended in the matter, it will pay a high interest on the investment. Improvements of this kind, however, should be gone into with great caution, especially by persons not acquainted with steam machinery and hydraulics. Farmers need not fear to dig ditches, and flood occasionally all the grounds low enough to be overflown by the water which they contain. The peculiar productiveness of land lying contiguous to rivulets and creeks has probably been observed by every reader. Distribute this fertilizing water over hundreds of acres through artificial channels made for it to flow in, and it will soon fill the soil with fatness. The water may be drawn out of the canals or ditches through small plank raceways or flooms, with gates that may be raised or closed at will. It is the leading object to obtain perfect command of all the water in the ditch, so as to use it *when* it is needed, and *where* it is needed. Irrigation is a rural art to be learnt, like all others, by study and experience. The operation ought to be so conducted that a hot sun will not bake the ground immediately after it has been covered with water. It should be let on in cloudy weather, if practicable, unless it be cool as in early spring, fall and winter.

Irrigation in the evening, as in watering a garden, so that the water will soak well into the ground before the sun is far up the following day, is a common practice. Where the main object is to fertilize a soil by conveying into it such soluble matter as it may need, irrigation in autumn, after crops are harvested, or in winter, is preferred. Before any considerable expense is incurred, an analysis of the water to be used ought to be made, that the operator may know what ingredients, and how much of each, he is about to give the irrigated land. Nothing will benefit American agriculture more than the formation of good pastures and meadows; and nothing is needed to produce these but a wise use of rain, river and spring water. Cattle, horses, hogs and sheep find fresh herbage by living springs and rivulets, after naked uplands and sorry old fields are sunburnt and destitute of all nutritious vegetation. What we recommend is the organization in valuable plants of those salts of potash, lime, soda, magnesia and ammonia which rain water takes from the atmosphere and the earth, in passing through and over the latter. The great ocean itself is made salt because all the streams running into it for indefinite ages carry down into its vast basin various kinds of earthy salts; while the water which escapes from the ocean by solar evaporation, and falls partly on continents and islands in rain, snow and dew, leaves all these mineral salts behind. The stream of water that flows out of the ocean in forming rain-clouds is nearly perfectly free from those salts of soda, lime and magnesia contained in the spring and river water flowing forever into the great deep. Instead of buying these elements of fertility in guano at $60 a ton, when taken out of the ocean, let us save them before they leave our farms.

RED WATER.

THIS is a common, severe, and untractable disease in cattle and sheep.

Red water in cattle is also called hæmaturia, moor-ill, darn, bloody urine, foul water, and, in its last stage, black water. In has been the subject of much discussion, both in Britain and on the Continent, both among practical observers and scientific men; and it continues, in a considerable degree, to be the topic of diversified and conflicting opinion as to at once it causes, its nature, and its proper treatment.—Seven select essays on it may be seen in the 9th volume of the *Highland Society's Transactions;* and

discussions of it, more or less valuable, occur in the *Veterinarian* and in all the best treatises on veterinary medicine.

Red water is sometimes accute and sometimes chronic, sometimes isolated and sometimes epizootic, sometimes apparently connected with particular kinds or states of pasture and sometimes apparently unconnected with any particular kind of pasture, generally irrespective of any distinctions of breed or sex or age or condition of cattle, and occasionally peculiar to cows immediately after parturition; and it may, therefore, be in some sense regarded, not as strictly one disease, but as a group of mutually related or mutually similar diseases.

When it attacks newly calved cows, it probably arises from change of food about the period of parturition, or from want of sufficient cleansing, or from previous fullness of the blood, or from all these causes or any two of them combined; when it attacks cattle on particular pastures, and does not attack cattle on immediately adjacent ones, it probably arises, wholly or partly, from the eating of acrid plants, such as *Ranunculus acris*, *Ranunculus flammula*, *Anemone nemorosa*, and *Anemone ranunculoides*; but when it makes its attacks in other circumstances, or does not appear to have any traceable connexion with peculiar states of herbage, it probably arises from such a complication of causes as cannot be easily or very certainly explored. Mr. Robert Thomson, the first of the Highland Society's essayists, says: "It is most prevalent in foggy pastures. It is seldom seen in hill pastures, or in new sown pastures, in which there is abundance of clover; but it sometimes happens at the stall, where the animal has no other allowance than straw, turnips and potatoes.—It usually makes its appearance after a few days of rain, followed by cold dry weather." Mr. William Laing, another of thee ssayists, says: "I am led to infer that close confinement in winter is one predominating cause, the cattle being thus deprived of the necessary exercise, fresh air, and access to earth, which seems to be useful in correcting the acidity produced in the stomach by costiveness and obstructed bile.—Frosty water is also another cause, as it tends to produce indigestion, bad chyle, and consequently bad blood. Barley chaff, given in its natural state, but more particularly when boiled, may also occasion it, by destroying the sensibility of the villous coats of the stomach. It occurs most frequently in the end of autumn, in winter, and more particularly in the early part of spring." Mr. A. Watt, a third of the essayists, says: "It is produced by dry food, difficult of digestion, and is always found among cattle that are fed off newly improved lands, and on turnips and straw that have grown on poor ground. Neglect of proper watering, and feeding on turnips after they have begun to grow in spring, are also causes." And Mr. Andrew Henderson, a fourth of the essayists states, as the result of extensive observation during twenty years, that "upon a light soil, liable to be soon burnt up for want of moisture, he found ten attacks of the disease for one upon any of the neighboring farms which might happen to have a deeper soil,"—that "the prevalence of the disease in such a situation was solely regulated by the state of the season, for in a moist season not a single instance perhaps would occur, while in a dry one numerous cases would appear,"—that, while passing by stock who were stationary it occasionally attacked cattle which experienced a change of pasture, particularly when the change was from fine to coarse herbage,—and that, in the course of most journeys of droves of cattle from Scotland to the markets of the south of England, many violent attacks occurred; and in reference to the last of these facts, he says: "I have observed, that twenty females for one male were attacked, and more especially such as had had calves,—that at the commencement of the journey, the disease was not prevalent, provided there was a constant supply of water, and the weather proved steady,—that during a long continued drought, the cattle were very subject to the disease, especially when pure water could not be had,—that sudden changes of weather were also apt to induce the disease,—and that at the commencement of the journey, some of the cattle were generally affected, although no perceptible change had taken place in the quality of the food, and although the cattle had not been exposed to any of the above causes. This must have proceeded from inflammation induced by sprains, bruises, or over-heating, caused by the cattle fretting and riding upon each other, as well as by the unmerciful strokes of the drivers." These details of observed causes in the course respectively of calving, of depasturing, of farm-yard feeding, and of journeying, ought to suggest to all proprietors of cattle-stock the several and most effective means of prevention.

"The first symptom of red water," says Mr. Thomson, "is the appearance of something like blood mixed with the urine. So trifling is the complaint in some instances, that no inconvenience seems to be felt by the animal, which eats and drinks as usual, chews the cud, and is free of the disease in a few days. In such cases, a natural diarrhea comes on, to which the cure may be attributed. In general, however, the disease is not observed until the animal refuses food, separates from the rest of the herd, appears dull and heavy, and manifests great languor and apathy. The ears droop, the urine is of a reddish or brownish color, and if it be a milch cow, the milk is often similarly tinged. The pulse ranges from 60 to 70; there is obstinate constipation of the bowels; the urine is discharged in moderate quantity, and apparently without pain. If relief is not afforded by some brisk purgative, at the period when the urine changes color from red to brown, the pulse begins to sink; and if a little blood be drawn at this time, its surface assumes a brownish color; the eye appears of a yellowish brown tint; the urine acquires a darker hue; the animal refuses to rise; the pulse sinks; the legs, tail, and horns turn cold; and the animal dies, to all appearance perfectly exhausted, although it has manifested no symptoms of acute pain during the course of the disease. On removing the skin in animals which have died of this disease, the subjacent parts have a peculiar dark yellow appearance. The abdominal fat has the same color. The first and second stomachs are generally pretty full of food. The third stomach, or manyplies, is dry; its rugæ are inflamed; its contents compressed as by general spasm. The fourth, or true stomach, is near-

ly empty; its gastric juice tinged of a dark yellow color. The small intestines show no marks of inflammation, but their mucous coat is tinged of the same color. The rectum contains indurated fæces covered by brownish slime. The liver is of a darker color than natural, but does not appear to be diseased in structure. The gall-bladder, in all cases that I have seen, is full of black, thick bile, somewhat resembling lamp-black and oil. The ductus communis choledochus does not appear to be obstructed, or if it is, this is effected by the presence of the neighboring viscera. The fat surrounding the kidneys is healthy, but of a dark yellow tint. The kidney shows no appearance of disease, and, on being compressed, emits a few drops of urine similar to that in the bladder. The latter organ is healthy, but full of dark-colored urine, resembling the thinner parts of the contents of the gall-bladder. There is no accumulation of fluid in the cavity of the peritonæum.—The thoracic viscera are healthy, but tinged with yellow, as are the liquor pericardii, and the cerebral fluid. The contents of the lacteals and thoracic duct are of a dark brown color. From the above appearances, the third stomach might seem diseased, but if water or liquid drinks be given plentifully before death, this appearance of dryness of the contents and inflammation will not take place. We must, therefore, seek the cause elsewhere. The kidneys are healthy, but the urine is tinged brown. The whole secretions are also more or less tinged. Shall we suppose, then, that the whole apparatus of secretion is diseased, or that the absorption of black inspissated bile into the blood colors all the secretions, as jaundice does in the human subject? This seems the most reasonable supposition. Bile regurgitated into the substance of the liver, can be taken up by the absorbents and passed into the blood, causing derangement of the functions of secretion, and giving a red appearance to the urine, milk, &c. If constipation of the bowels be present, the bile may be taken up by the absorbents of the mesentery, and introduced into the circulation; and, if continued for some time, the whole blood will become poisoned as it were, and unfit for the support of animal life, although there is no appearance of mortification in any part of the system, but all the secretions, together with the fat, are more or less tinged with a dark brown or yellow color."

The empirical treatment of red water, on the part of stock-farmers, cow-doctors, and veterinary quacks, exhibits the most astonishing variety, and comprises almost a museum of absurdity, and might be instructively detailed, through scores of grotesque and monstrous particulars, in illustration of human ignorance and folly. Even the professional treatment of it on the Continent has a strong dash of the vague and the ridiculous. But the treatment recommended by all the best British veterinarians is intelligible and simple, and consists mainly in purgation, accompanied with the administration of subordinate remedies suited to the secondary or adventitious symptoms. Mr. Thomson's prescription is one of the clearest, and is declared by Youatt to "comprise the substance of that treatment which is founded on principle, and will be attended by success where success can be attained," and is stated in the following terms:—"Purgatives of any kind, if given in large quantities of water, are found to be the best medicines that can be employed. Medicines given to cattle that have lost the power of chewing the cud, generally pass into the first and second stomachs, and if a good draught of water is not given to wash them from thence, if the animal dies the greater part of the medicines will be found in these stomachs; and upon this principle, common salt, if properly managed, will be found among the best. Dissolve the quantity to be given in as much water as will enable it to pass freely from the bottle or drenching horn, and let the animal have plenty of water to drink afterwards. Should it refuse to drink, no time should be lost in drenching it profusely with water. Without a plentiful dilution, there is no certainty of purging cattle that have lost their cud. If purging does not commence in from 12 to 24 hours, a second dose should be given. Injections of soap and water should also be tried if the case is obstinate, and when they operate, a pint of linseed oil should be given as a laxative. So obstinate is the constipation in some cases, that the salt acts only as a diuretic, causing a plentiful discharge of urine. Diuretics and astringents combined seem only of service when the bowels are open, and their improper administration often causes inflammation of the bowels and kidneys. If, after purgation, the bowels are kept open by laxatives, such as linseed infusion, the disease will gradually disappear without their use. In the last stage of the disease, when the urine assumes a dark-brown or black color, no remedy seems to have any efficacy, the animal is sunk beyond recovery, the bowels lose their action, suppression of urine follows, the animal stretches itself out and dies, as if perfectly exhausted. It is the duty of the owner, then, to attend to the disease at its commencement, and pursue a determined course of practice. Whether the disorder be owing to absorbed inspissated bile, diseased manyplies, or disease of the secerning glands, purgatives of any kind, profusely diluted with water, almost always effect a cure."—Some good practitioners, especially when constipation and excitement have occurred before they can prescribe, begin with letting blood, and purge with a mixture of Epsom salt, flowers of sulphur, powdered ginger, and carbonate of ammonia, and, after purgation is fairly established, administer mild stimulants or nourishing drinks.

Red water, both in cattle and in sheep, is often popularly confounded, both in name and in symptom, with inflammation of the kidneys and inflammation of the urethra or of the mucous membrane of the bladder. The urine discharged in these diseases is mixed with blood, but not so intimately as in red water, and generally with more or less accompaniment of mucus. Inflammation of the bladder or of the kidneys may easily be distinguished by this difference in the bloodiness of the urine; and, like every other case of acute inward inflammation, must be attacked with copious bleeding and with purging, yet must either not at all or very cautiously be assailed with counter-irritation.

A Buffalo wheat-buyer, who invested $3,000 in wheat, with the design to give the profits to the cause of religion, has handed over $1,500 as the result.

ROT IN SHEEP.

YOUATT says:—"The rot in sheep is probably the produce of ground which has been lately wet, and then the surface exposed to the action of the air.—The grass and other plants, previously weakened or destroyed by the moisture, become decomposed or rotten; and in that decomposition certain gasses or miasmata may be developed that cannot long be breathed, or scarcely breathed at all, by the sheep without producing rot." HOGG says:—"Feeding on land which has been formerly or is at the time pastured by cattle, is an exciting cause of rot; and the rank grass of a deep green color, springing from the spots on which they drop their dung, is likewise vastly deleterious; as is also that kind which rises round the borders of their foot marks, after being soaked in stagnant water. This last cause affects, not individuals, but whole parcels; and in general, any misfortune or slight disease which has for a while interrupted the animals thriving on all soft tathy pastures is almost sure of introducing the rot" And CLATER says:—"Rot prevails, or rather is found, only in boggy, poachy ground. On upland pasture, with a light sandy soil, it is never seen; and in good sound pasture in a lower situation, it is only seen when, from an unusually wet season that pasture has become boggy and poachy. It is also proved to demonstration, that land that has been notoriously rotting ground, has been rendered perfectly sound and healthy by being well under drained, that is, by being made dry. There are hundreds of thousands of acres, on which a sheep, forty years ago, could not pasture for a day without becoming rotten, that are now as healthy as any in the kingdom. We can also tell the kind of wet ground which will give the rot. Wherever the water will soon run off, there is no danger; but where it lies upon the surface of the ground, and slowly evaporates, the rot is certain. One part of a common shall be enclosed; or if it has not been drained, at least the hollows in which the water used to stand are filled up, and the surface is leveled; no rot is caught there. On the other side of the hedge there are these marshy places, these little stagnant ponds, where evaporation is always going forward, and the ground is never dry—a sheep cannot put his foot there without being rotted. These are plain, palpable facts, and they are sufficient for the farmer's purpose, without his puzzling his brains about the manner in which wet ground produces diseased liver."

The prevention of the rot is of prodigiously more consequence than the cure; and must be achieved by every method which will render the soil dry and the herbage sound. Whatever tends to improve the value of pasturage, and the general health of sheep, tends also to prevent the rot. Thorough draining, the extirpation of weeds, the increase of the choicest grasses, the reclamation of all waste corners and boggy spots, the promotion of uniform cleanness and sweetness throughout all the area of a farm, the careful exclusion of sheep from every field and lane where they might be likely to encounter dead herbage or putrid puddles, and the keeping of cattle stock to eat all the aftermath of low and dangerous pastures, and to consume all esculent herbage anywhere which might be somewhat hazardous for sheep, are eminent preventives, and may be regarded as essential to success. Draining alone, without due regard to the drying of the deep subsoil and of every nook and square-yard of the ground, may not, in even the most favorable situations, be sufficient. A very little more than the average amount of rain upon heavy and tenacious land, no matter how regularly underlaid with ordinary drains, or only a few minutes' tramping upon some undrained or neglected nook of a field, all whose other area is perfectly dry and sound, may defeat very elaborate precautions, and give rise to very disastrous rot. "It is surprising," remarks CLATER, "how soon the animal is infected. The merely going once to drink from a notedly dangerous pond has been sufficient,—the passing over one suspicious common in the way to or from the fair, and the lingering only for a few minutes in a deep and poachy lane. Then it can easily be conceived what mischief one or two of these neglected corners, in which there may be little swamps perhaps only a yard or two across, may do in a farm in other respects well managed, and perfectly free from infection."

One of the best known means both of prevention after contact with infected ground and of cure in the early stages of the actual disease, is the use of common salt. This substance, besides promoting the general health of domesticated animals, and aiding the salubrious qualities of their sound food, both counteracts the putrefactive tendency of dead and fermenting herbage, and kills the eggs and the young of all such small animals as flukes. The natural presence of salt disarms wet pastures of all the power which they would otherwise possess to create the rot; and the artificial administration of it, regularly and judiciously along with food, protects sheep from danger in many an occasional situation or during many a critical season in which they might otherwise be overwhelmed with infection. "Salt-marshes, or low lands by the sea-side or on river-sides near the sea, which districts are alternately washed by high-tide sea water, and flooded with foul inland water charged with flukes' eggs, are proverbially sound sheep-walks.—Situations which, further inland, would be regarded as the worst or the most sure kind of rotting land, become, from being washed occasionally with sea water, not only perfectly sound sheep-land, but are sometimes said to benefit animals already diseased. The salubrity of such situations is presumed to depend upon the action of sea-salt, of which a small deposit will be left upon the grass, as, after the subsidence of the last tide, the aqueous part of sea water is evaporated by the wind and sun. Any small impregnation of iodine in the sea water is not looked upon as operating in the case. It would seem, therefore, desirable to keep a moderate supply of common salt in the stomach of sheep, whilst and for a few days after they are using unsound or suspicious pasture. The practical herdsman would probably do well, when his flock may have accidentally or unavoidably grazed upon rotting land, to give his sheep an hour's run, twice or thrice a day, upon acknowledged sound pasture of the most commingled herbage, that the animals may pick up some plant which stimulates their digestive organs. If he would improve upon this, he might give, with some prospect of advantage too, as often as twice or thrice a day, a little barley meal,

with chaff and salt, or good hay wetted with strong brine as food, or hay tea with salt for drink."

A cure is seldom effected when the disease has advanced far, but may be very hopefully attempted when the disease is only in an early stage, and especially when it is detected through the internal appearance of a killed sheep, and has not yet shown itself in any very perceptible external symptom. The infected flock should be removed either to a good salt marsh or to an artificially salted dry pasture. A piece of pasture, of sufficient extent to allow one acre to every ten sheep, may be hurdled off, and sprinkled equally with salt at the rate of one bushel for every sheep; and the flock may be turned into it about three weeks after the sprinkling, and may continue in it till they eat the grass quite close; and another piece of the same size, and similarly prepared, ought then to be ready for their reception. As much salt as they are disposed to take may be given also with their hay or their other food. An aperient of two ounces of Epsom salt in warm gruel or water must be given to each sheep at the commencement of the treatment, and should afterwards, at some distance of time, be once or twice repeated. Food of as nutritious a kind as convenient, such as a pint of beans daily, and a large allowance of good hay, and a quantity of good gruel, ought to be constantly allowed.—Many kinds and combinations of medicine, comprising mercurials, balsams, essential oils, anodynes, tonics, aromatics, and miscellaneous drugs, have been recommended; but, for the most part, are either useless or positively objectionable. Calomel, at the rate of 4 grains or so a day to each sheep, is confidently prescribed by some veterinarians, but pronounced valueless or worse by others. A daily dose of half a drachm of sulphate of iron and the same quantity of powdered ginger in gruel, is one of the simplest and least objectionable of the prescribed aromatic tonics. A table-spoonful of oil of turpentine, mixed with two of water, and twice administered after an interval of three days, is said, in the *Agricultural Report of Staffordshire*, to have cured five out of six rotted sheep. And the following recipe is given by Mr. CLATER, and is said by HENRY CLEEVE, Esq., to have been used with very salutary effects:—6 ounces of powdered saltpetre, 5 ounces of fresh powdered ginger, 2 ounces of finely powdered red oxide of iron, 3½ lbs. of common salt, and 3 gallons of boiling water,—the water to be poured on the other ingredients, the mixture stirred, 14 ounces of oil of turpentine to be added when the mixture becomes lukewarm, the whole to be now put into bottles, and three doses, of 4 table-spoonfuls each, to be given at intervals of four days to each sheep fasting.

Rotted sheep, however, no matter how slightly infected or how promptly cured, always retain a taint of the disease, and are peculiarly liable to be reinfected with it, and never attain restoration to complete vigor and perfect health, and, in many instances, fall victims, some 6 or 12 months after, to an attack of hoove or of intestinal inflammation. Lambs have occasionally been produced by cured ewes,—but they are feeble in constitution, and sickly in habit; and any sheep which have had rot, no matter how seemingly well recovered or how eventually high in condition, are readily known by a butcher, from the appearance of the liver, to have been diseased.—Sheep-owners, therefore, will generally find it for their interest, not only to cure and fatten up infected sheep with all possible promptitude, but to sell them as soon as they are fattened.

RUMINATION.

THIS is the remastication of food by a ruminant animal. Liquid or attenuated food passes at once into the third and fourth stomachs, and is not remasticated; but all other food, particularly such as consists of comparatively dry and solid vegetable matter, descends into the rumen, is there slowly macerated, passes by little and little into the second stomach, and is there separated by compression into a liquid and a solid portion,—the liquid to pass on to the third and the fourth stomachs, and the solid to be returned in pellets up the gullet for such remastication as shall reduce it to a pulp, and fit it to pass direct, by re-deglutition, into the third and the fourth stomachs. The remastication is effected while the animal lies at ease,—and constitutes what is popularly called "chewing the cud,"—and takes place only upon matter which nothing short of an operose process can reduce to perfect pulpiness or liquidity; and the regorging which attend it differs widely from the belching or vomiting of a non-ruminant animal, and is as regularly conducted by a specially constituted organism as deglutition or absorption or secretion or any other ordinary act or function of the animal system.

In order to understand the process of rumination, we must advert to the manner in which the four stomachs communicate with the gullet, and with one another. The gullet is an extensile membranous tube, much more complicated in ruminating quadrupeds than in man, the muscles which surround it being strong, and consisting of two rows of fibers, crossing one another, and running spirally in opposite directions; and these muscles, by their contractions, so powerfully force the morsel of food begun to be swallowed onwards into the inlet of the stomachs, that the process of deglutition once commenced cannot be stopped, even by the will of the animal. The gullet enters just where the first, second and third stomachs approach one another, and discharges itself almost equally into the first and second. Connected with it is another organ which may be termed the cud-duct. This is sometimes a groove and sometimes a tube, according to its action; and runs from the termination of the gullet to the third stomach, with the first stomach on the left, and the second on the right, and discharges itself almost equally into the second and the third. It has thick prominent margins, which can be brought to meet so as to form a complete canal, and thus constitute a continuation of the gullet across the second stomach into the third. All these parts, the gullet, the cud-duct, the first, the second, and the third stomachs, not only communicate with one another, but all communicate by a common point, the point where the gullet terminates, where the cud-duct commences, and towards which the three stomachs open or end. Now in the process of returning the macerated food for re-mastication, it is the cud-duct, together with the shut termination of the gullet approached to the shut inlet of the manyplies,

which forms the pellets. To understand the mechanism by which these are molded, let it be marked, first, that the cud-duct extends from the termination of the gullet to the inlet of the manyplies,—secondly, that when it contracts, it approaches one or other of these apertures,—thirdly, that of these two apertures, the termination of the gullet is habitually shut, and the inlet of the manyplies, naturally straight, can be so narrowed as almost to close by its own contraction,—and fourthly, that when the first two stomachs, compressed by the abdominal muscles and the midriff, contract, they push in consequence the materials which they contain both against the two apertures opposite to each other, and against the cud-duct opposite to the two stomachs. The two stomachs, in this manner, in proportion as they contract, push the materials contained in them between the margins of the cud-duct, and the cud-duct also contracting, causes the two apertures of the gullet and of the manyplies to approach, while the two apertures being closed and brought near together, seize upon a portion of the aliment, and detach it in the form of a pellet. The aperture of the gullet is closed during the act of detaching the pellet, because at that instant the midriff is contracted, and it only opens when the midriff is relaxed; and the aperture of the manyplies is closed, because at that instant the manyplies, as well as other stomachs, is contracted.—From these circumstances, it is obvious that the pellet must be detached, as it could not otherwise be seized by the two approaching apertures,—that the pellet must be round, for this is the form of the cavity formed by the parts of the organ employed in the process,—and that the pellet must be about an inch in diameter, for the cud-duct, when contracted in the act of forming the pellet, is about an inch in length. How beautiful a contrivance,—how exquisitely adapted to the structure and wants of the animal,—and how minutely and highly illustrative of the all-pervading beneficence and skill which everywhere shine out in the works of the Creator!

One important practical lesson suggested by the nature of rumination, is the proper feeding of cows, in order to produce the greatest quantity of milk.—If they are fed on very dry food, such as hay, the greater portion of fluids in the blood will be spent in the process of rumination and digestion, and the milk will be scanty; but if they be fed on aliment which abounds in liquid, such as mangel wurtzel or brewer's grains, and distiller's wash as in Holland, they will ruminate much less, a less quantity of saliva will be wanted for chewing the cud, and a large proportion will go to the production of milk, though this will be thinner, and not so rich in cream as the milk produced from drier food. It is questionable whether cows fed wholly on distiller's wash would ruminate at all any more than calves, which so long as they suck, never ruminate.

Another important practical lesson has reference to the giving of medicines, and is stated as follows by CLATER:—"We may, to a very great extent, send medicine into what stomach we please. We may give it in a ball, and it will fall into the paunch, and thence go the round of all the stomachs; or it may be exhibited in a fluid form, and gently poured down, and the greater part of it passed at once into the third and fourth stomachs. That which is meant to have a speedy action on the constitution or the disease should be given in a fluid form. That also which is particularly disagreeable should be thus given, otherwise it will enter the paunch and be returned again in the process of rumination, and disgust the animal, and, perhaps, cause rumination to cease at once.—This would always be a dangerous thing, for the food retained in the paunch would soon begin to ferment, and become a new source of irritation and disease."

A third important practical lesson has reference to the sweating of the domestic ruminants, particularly sheep. Sweat is a production of the fluid portion of the blood, or arises from the same source as the salivary secretion employed in rumination; and hence the flow of it is more to be dreaded in ruminating animals than in others, inasmuch as it greatly diminishes the supply of fluid which ought to be employed in rumination. If sheep are sweating while they ruminate, there will be two evacuations of fluid at the same time, the body will be dried, and the blood exhausted and heated by the loss, while thirst will supervene, so as to make them drink till they are incommoded and their temperament altered. Sweating is also hurtful to sheep in other respects; for the fibres of their wool are thereby deprived of a part of their nourishment, which the sweat carries out of their body, while the heat which occasions the sweat causes the wool to grow too rapidly to acquire sufficient consistence.

RAIN-GAUGE, OR PLUVIOMETER.

THIS is a machine for measuring the quantity of rain that falls. There are various kinds of rain-gauges: one of the best is a hollow cylinder, having within it a cork-ball attached to a wooden stem, which passes through a small opening at the top, on which is placed a large funnel. When this instrument is placed in the open air, in a free place, the rain that falls within the circumference of the funnel will run down into the cylinder, and cause the cork to float; and the quantity of water in the cylinder may be seen by the height to which the stem of the float is raised. The stem of the float is so graduated as to show, by its divisions, the number of perpendicular inches of water which fell upon the surface of the earth since the last observation. It is hardly necessary to observe that, after every observation, the cylinder must be emptied. A very simple rain-gauge, and one which answers all practical purposes, consists of a copper funnel, the area of whose opening is exactly ten square inches. This funnel is fixed in a bottle, and the quantity of rain caught is ascertained by multiplying the weight in ounces by 173, which gives the depth in inches and parts of an inch. In fixing these gauges, care must be taken that the rain may have free access to them. Hence the tops of buildings are usually the best places. When quantities of rain, collected in them at different places, are compared, the instruments ought to be fixed at the same heights above the ground at both places, because, at different heights, the quantities are always different, even at the same place.

DON'T over-work your cattle in hot weather.

FALLOWING AND WHEAT-SOWING.

Mr. Editor:—The question of naked fallows in connection with wheat-growing is one which is of great practical importance to the farmer, and respecting which much may be said, for and against. If land designed for wheat is infested with weeds, such as dock, thistle, red root, &c., no substitute so economical in time and labor for a good thorough fallow can be easily found—the ground to be worked with the plow or cultivator as often as weeds shall have fairly commenced growing; but the work must be thoroughly done if you wish to clean your ground—no half-way work will answer.

To know when to fallow to advantage, presupposes a knowledge of the elements of soils and plants, and the effects of disintegration and pulverization of the soil. All lands are not equally benefitted by this process—Nature never fallows her ground unless all the elements of fertility are exhausted or absent. Some plant is growing on nearly every soil, which, by its growth, decay, and ultimate decomposition, fits the land for a different growth of vegetation.

It is a fact known to all, that, with hardly an exception, the constant growing of a wheat or grain crop in any given locality for a term of years, causes the return of seed to become steadily less and less—the rapidity of decrease depending much on the original fertility of the soil, and the kind of grain sown. This fact was known for thousands of years before the reason why was discovered; and it was only by the application of inductive chemical research that the cause became evident. All cereal or grain crops are composed of certain minerals and certain gases, the proportionate quantities in combination varying with the kind of grain. All fertile soils contain the *same* mineral substances; and it has been proved by repeated experiments that if these mineral substances are wanting in any soil, the proper growth of the plant, and perfect development of the seed, cannot take place. We also know that by the agencies of heat, light and moisture, the seed becomes a plant; and that the plant, by means of its spongioles, or absorbent vessels at the extremities of its roots, selects from the materials present in the soil those appropriate to its own growth and development. It is also found that these elements must be in a soluble state.

By the influences of heat, light, moisture, and the presence of the atmosphere, these inorganic elements are constantly being decomposed, and becoming fitted for the food of plants. When we wish to analyze any substance, of whatever description, we reduce it to a state of powder, if it can be so reduced, or dissolve it in liquids, before we apply our tests and reagents. Precisely the same thing is accomplished by the pulverization of the soil. By the agencies before mentioned, the organic or vegetable matter contained in a soil decays, the inorganic is decomposed; and the greater the degree of pulverization, and the greater the extent of porous surface, so to speak, the more rapidly are these changes induced. We should all take notice that these various substances must be offered to the growing plant simultaneously; for the perfect development of the plant is checked if either of these elements is wanting, precisely as our existence ceases when one of the conditions of existence is inoperative, or as a clock would stop if a single wheel is taken from it.

The next point of interest demanding our notice is to inquire, What are the elements of our crops, and in what proportion are they removed by cultivation from the soil? We find by analysis that they consist chiefly of potash, soda, lime, magnesia, and sesquioxide of iron, combined with carbonic acid, sulphuric acid, muriatic acid, or chlorine, and ammonia. Some of these compounds are soluble in water, viz., the alkaline salts. The earthy salts are soluble in diluted muriatic acid. The silicates are mostly insoluble in either water or acids.

Solly, in his *Rural Chemistry*, estimates that in a crop of Hopeton wheat, averaging 20 bushels to the acre, there are removed from the soil, in the seed, about 10 lbs. of phosphoric acid, 7 lbs. of potash, ½ lb. of soda, and a little more than 2 lbs. of magnesia; in the straw, about 60 lbs. of silica, 6 lbs. of phosphoric acid, 5 lbs. of sulphuric acid, 9 lbs. of potash, 3 lbs. of magnesia, and nearly 1 lb. of soda. From the above estimate, we can easily see how comparatively easy is the cultivation of wheat on a virgin soil, compared with one that has long been tilled. In the one case, all these elements are present; in the other, many have been entirely removed. But good husbandry will restore these needful elements as fast as economy and prudence will allow. Many good cultivators manure the ground liberally for hoed crops the year previous to the rotation for wheat; then by plowing deep, and turning under all the surface vegetation, with the cultivator and harrow pulverize and render friable the soil.

In many sections of the country, a serious obstacle to the growing of wheat is found in the ravages of the fly; and it has been feared by some that the wheat crop must be abondoned for a while, until the insect shall have disappeared. Late sowing is generally recommended by those who have the best knowledge of its habits. Mr. Charles Yancy, of Buckingham county, Va., in the Patent Office Report for 1851, says "that of late years the Hessian fly is scarcely dreaded. The improvement of our lands and better tillage, with a little later sowing, has lessened their damage greatly." The experience of the present year, however, seems to negative the conclusions of former years; for in many parts late-sown wheat has suffered most. So that we are still dependent on a more exact knowledge of the habits and instincts of the insect in question. Dr. Harris urges the importance and necessity of destroying the larvæ, or maggots, of the wheat insect left in the chaff. He says: "It may be found expedient to reap the wheat early, or before the maggots have left the ears. The insects will then remain in the chaff and dust after the grain is threshed and winnowed—with which they should be burnt. If this be neglected, and the maggots are left to descend from the grain in the field, or are scattered with the chaff and dust around the barn-yard, the ground will be well seeded for a plentiful crop of the insects in the following year."

To prevent smut, soak your seed over night in strong brine; dry it with slaked lime or strong ashes, and sow the same day. In conclusion, I would urge

the great advantage of experiments in steeps, for the purpose of accelerating the growth of plants in their early stage, and a publication of the same in your columns; for facts are the basis of all correct agricultural practice. Yours, CULTOR.

IRRIGATION.

MR. EDITOR:—The present season of drouth is a convincing illustration of the necessity of providing, wherever practicable, some means for the irrigation of cultivated crops and vegetables. The wilted leaves of our garden vegetables, and their entire cessation from growth for the past few weeks, tell more forcibly than words can do of the importance of the presence of water in the elaboration of the juices of plants, and its aid in the supply of food to the thirsty rootlets. The thanks of all cultivators of the soil will be eminently due him who shall devise a systematic and efficient means of enabling us to avert the effects of the protracted drouths from which we suffer every season, and which every year seems to be of longer duration; and we have every reason to expect that as long as the felling of our forests shall continue, and the earth be shorn of these great condensers of atmospheric moisture, these periods of drouth will continue to increase in duration and extent. Such has been the case in countries which have been denuded of their forests, and such is the experience of observers here.

It follows, then, that we must direct our minds to the best means of averting the same. In hilly countries, that are supplied with springs and running brooks, the water-ram will eventually be found to be of great service; for by its aid, with but a few feet fall, we can elevate a perpetual stream to a height many times the fall of the driving stream. But in Western New York, and on the prairie lands, water-rams will not answer, for the simple reason that most of our streams become dry during the summer months precisely at the time when most they are needed. We must then resort to animal, wind, or steam power, to raise the water of irrigation from beneath the surface to a height sufficient to flow over our fields. In most sections of our country animal power is too expensive, and the same objection applies to steam power. Then there remains the wind—the unseen power, every where present, and for which no expense is incurred except to provide the means of use.

We see it stated in the *Springfield* (Mass.) *Republican*, that an ingenious mechanic of Ellington, Conn., has invented and put in successful operation a self-adjusting wind-mill, which furls its own sails at the proper time, stops when the wind is too high, and starts upon its steady round again when it returns to its appropriate degree of force. It has been in operation six months, without requiring a hand to regulate the sails—has run fifteen days and nights consecutively without stopping—has drawn water from a well twenty-eight feet deep and one hundred feet distant, and forced it into a reservoir in the upper part of a barn in sufficient quantities for farm and garden irrigation—and cost but $50.

If the inventive genius of our mechanics has produced a machine answering to the above notice, then the great difficulties in the way of irrigation have been mostly removed; and whoever will first apply the same in practice will reap a generous reward.

Yours, CULTOR.

CROPS IN SENECA COUNTY, N. Y.

MR. EDITOR:—The crops in Seneca are very unequal. The well-tilled, manured, and drained fields have given good crops of every thing but timothy hay, while all slack farming is pinched by drouth. Potatoes are backward. Less wheat was injured by the insect than by the snowless winter. More corn is now growing here than ever before; the early planted never looked better. More flax than usual will be grown this year, as the threshed stalk is contracted for at $6 the ton—seed at $1.50 a bushel.

Very respectfully, S. W.

WATERLOO, Seneca Co., N. Y.

THIN SEEDING.

I WISH to ask "J. B.," who has written such an excellent account of my friend Mr. MECHI's farming, but who disapproves of what he calls Mr. MECHI's too thin seeding, whether he himself has ever fairly tried half a bushel of seed wheat or of seed barley against twice as much, three times as much, or four or five or six times as much. If he has not, I should also wish to ask him what he would think of one peck of wheat or even of half a peck, or of one or two pecks of barley only. Of course, if "J. B." condemns Mr. MECHI's four or five pecks of seed wheat, he would more than condemn my two pecks or one peck, and especially my half peck, and my two pecks of barley; and yet I produced on the same field, on an average of four years in succession, 8½ qrs. of wheat, and my quantity of seed never exceeded two pecks, but I varied it from half a peck to two pecks; and what will, I have no doubt, astonish "J. B.," and perhaps nine-tenths of farmers besides, still more, my crops from the half peck and the one peck of seed wheat per acre were better than those from the two pecks. Let it always be understood, also, that I always sold my wheat at the very highest market price. And as for my barley, the lowest crop I ever had was 4½ qrs. per acre, and the highest 8 qrs. within one bushel; and these crops I sold every year, except one, for seed; and that one, which was last year, the barley grew in the same field which had been wheat four successive times before; I sold it at a declining market, at 44s. a quarter. Nay, I go still further; I am now cutting a crop of clover in the same field, which for weight and quality I will back against any crop in England, however it may have been produced; and I intend to mow it again, and then I will drill the field with wheat, with the drill I used and invented myself, and which deposits just as many seeds as I wish and no more; and the highest quantity of seed I will drill shall be two pecks, and the lowest quantity half a peck; and I will even now back the produce next year against any one bushel, two bushel, or three bushel seeder in the kingdom. Why, then, should I use more seed? Will any gentleman point out to me why I should throw into my

land 64 or even 96 quarts of seed per acre, when I can produce, as I have done, nearly 7 qrs. of fine wheat, and nearly 8 qrs. of fine barley, from quantities of seed ranging from 4 to 16 quarts an acre only? And I do still more; for while the thick seeders exhaust their soils with every crop they produce, rendering their operations a continual series of exhaustings and repletions, my land always improves under my system, from its never being impoverished. But, according to my friend Mr. MECHI's showing, he himself puts into the ground from 12 to 15 grains of wheat to every square foot, and of this quantity "J. B." complains that it is too small; whereas, for some parts of the crops I have referred to, I used only one-eighth or one-tenth as much, and for none of them did I use more than one-fifth or one-sixth; and let it be bore in mind always that I produce crop of wheat after crop as long as I please, and then barley; and now this year, as I have stated, I will back my clover, for quantity and quality, against any crop in England; and "J. B.," if he will take the trouble, shall be the judge. But perhaps I shall be told, as I often have been, that this is garden cultivation; and if so, so much in commendation of it; but no such thing, I cultivate with the plow, roller, harrows, scarifier, and horse-hoe alone; and, as I have stated, I put my seed in with a two-horse drill, invented and made by myself, and with which I can put in half a pint of seed with as much regularity as I can two pecks, or a bushel or more. Where, then, I may perhaps be asked, is the secret? And if so, I answer—in deep and thorough draining, the best plowing I can give, never exhausting, and the feeding of my crops with such food as is proper for them.—*George Wilkins, in the London Agricultural Gazette.*

BURDOCK leaves will cure a horse of the slavers in five minutes; let them eat two leaves. I have tried it many times. My horse will always use them when the slavers are bad.—*Ploughman.*

MESSINA—A COUNTRY SEAT ON THE HUDSON.

WHOEVER has not seen the country seats on the upper side of the Hudson, knows nothing of the finest specimens of rural residences in America. There are in the neighborhood or Boston, many beautiful villas and cottages, designed in admirable taste and kept in the highest order, that are indeed admirable in every respect; but they, like more solitary specimens of the same kind, in the environs of many of our cities, are only suburban residences of a few acres. There are, in various parts of the country, many gentlemen's large seats, well laid out, with lawns, pleasure grounds and gardens, in a simple and unpretended manner, highly creditable to the possessors. But nowhere in America, are there to be found country residences, where nature has done so much to assist man in his attempts to create a beautiful home, as in what may be called the upper terrace of the Hudson. This includes a hill of land on the eastern shore, extending from Hyde Park to Hudson city, a distance of about 50 miles.

MESSINA—A COUNTRY SEAT ON THE HUDSON.

The peculiar advantages of this part of the river are these: First, the finest mountain and river views in the country—the river being the Hudson, in its loveliest portion—sometimes two or three miles wide—indented in outline, and varied by numerous islands; the mountains being the Catskills—their highest summit 3,000 feet high—near enough to give a character of grandeur to the scene, and distant enough to possess that blue haze of atmospheric distance, which makes a mountain a bit of poetry, instead of a bare reality of rocks and trees in the landscape. Second, they have the advantage of having been held as country seats since the first settlement of the river—with much of the fine natural beauties of wood and water preserved and heightened by the fostering spirit of taste, rather than despoiled by the avaricious spirit of the mere tiller of the soil.

For almost the entire distance of this fifty miles, the east bank of the Hudson is one line of country seats—varying in extent from 50 to 500 or 600 acres. Instead of having the same general features of interest and beauty, nothing is more striking to the picturesque tourist than the highly *varied* character of these places. Every mile seems to present new groupings of headland and foreground, some new combinations of wood, water, and mountain—so that no one who has seen one or two places can imagine with certainty what will be the aspect and picturesque character of the next residence. The enchanting beauty of the Hudson itself is varied and heightened too by its peculiar life and animation. Snowy sails, sometimes singly in calms, and sometimes floating along in the light breezes like troops of white swans; swift steamers freighted with throngs of busy and curious people; huge clusters of freight barges, loaded down with the produce of whole countries; and finally, stealing along under the high wooded banks, the river railway, whose trains fly along between the commercial and political capitals of the State at the rate of thirty to fifty miles an hour—all of these gives to these finest seats on the Hudson a completeness of interest which the traveller looks in vain for anywhere else in America.

Among the finest of these residences, Montgomery Place, Blithewood, Ellerslie, Hyde Park and others, have been already described, and some of them illustrated in various other works of ours. Persons wishing to see the finest specimens of landscape gardening in the country, naturally go to these places, to study them as the best examples of the art, and there are few places, out of England, where the lover of embellished home scenery can find so much gratification and instruction.

About the center of this upper terrace, lies Messina, the seat of the late JOHN R. LIVINGSTON, Esq., a sketch of which we present our readers this month. This house is one of the noblest in its proportions on the whole river, and is worth an examination as a specimen of a first class mansion in the country. It was built by Mr. LIVINGSTON, after his return from France, some years ago. He was so much pleased while there with the residence of BEAUMARCHAIS, near Paris, that he determined to model his own home upon it. This accounts for the air of a French Chateau, which we discover in some of its features. The design was, however, really drawn by an English architect, BRUNEL, the celebrated architect of the Thames tunnel—who came out to this country and erected two or three residences for different members of the LIVINGSTON family. The plan of the interior is spacious and elegant—the rooms large and finely proportioned, uniting some of the best features of both the English and French residences.

Finely varied and extensive grounds surround the mansion at Messina. There is an abundance of foliage and fine old trees, the scenery is beautiful, and the neighborhood most picturesque and interesting. Though not at present in the high condition of some of the places we have just mentioned (owing to the want of personal interest, consequent upon the declining health of the late proprietor), it could readily, in the hands of a person of taste and fortune, be restored to its former high keeping. As it is but rarely one of the first class residences is to be obtained, we believe we shall render a service to some of our numerous readers who are annually settling in the country, by drawing their attention to a site that has long been considered one of the best in the Union.—*Horticulturist.*

CHEESE-MAKING.

MR. HAYWARD, of Frocester Court Farm, has given his experience as a cheese-maker in the Vale of Berkely; it is a valuable document.

Management of Cows.—The cows are generally turned out to grass in the end of April or beginning of May, upon those grounds which Mr. HAYWARD has found, from experience, to produce the most and the richest milk. These grounds are nearest to the homestead, and have always been pastured. The driving of the cows before milking, and the carrying of the milk to any considerable distance, are found to injure the quality of the cheese; and to avoid this consequence, the pasture grounds should always be, as on this farm, near the homestead.

The cows on this farm are divided into three lots, the young and weak ones being in one lot. Each of these three lots has two fields of pasture, and they are generally kept a week at a time in each field, so that they have fresh pasture every week—an advantage much greater than most farmers are aware of. Great care is taken never to over-stock the pasture of the cows. They ought, at all times, to have a full bite of close, short fine grass. Long over-grown grass gives a rank flavor to the cheese, and should always be avoided.

In dry seasons, when the pasture has got too short, some of the fields that were intended for mowing are given up to the cows for pasture. When the hay is all cleared off the mowing grounds, and the after-grass begins to grow (it generally takes several weeks to make much appearance), the cows are shifted into these grounds. Land which is long pastured by any animal gets foul and unsound for it, and the after-grass always makes the cows spring their milk. They are, therefore, generally moved from the pasture grounds into the after-grass before there is much of it for them.

It is very essential for cows to have a shade and water in every field. The shade of trees, however, is the only shelter from sun and storm which they have on this farm, and indeed in the whole vale.

Pigs.—Upon this and every dairy farm a number of pigs is necessary to consume the whey—one pig to two cows in summer, but not so many in winter. Their food in summer is grass, clover, vetches and hay; in winter, raw potatoes, with tailing corn, whey and skimmed milk. When they are being fattened, bean or barley meal is mixed with boiled or steamed potatoes, in the proportion of a bushel of meal to two cwt. and a half of potatoes. The breed of pigs kept on this farm is the Berkshire, with a small mixture of the Hereford. Some of them are sold in a store state; most of them are fattened. Five or six breeding sows are always kept, which are regularly fattened off, when one year and a half old, and fed to about three cwt.

Management of the Dairy.—It is acknowledged

by every one at all acquainted with the subject, that the quality of cheese does not depend upon the superior richness of the soil or the fineness of the herbage; for cheese of the first quality is frequently made from land of an inferior description, and from herbage of a coarse nature. Nor does the quality of the cheese depend on the breed of the cows; for cheese of the best quality is made from the milk of cows of all the different breeds that are to be found in the country. We think it principally depends on the management of the cows as to their food, &c., of the milk in converting it into cheese till it is fit for market.

The following circumstances are injurious to the quality of cheese: Allowing the cows to get rank or ill-flavored grass or hay, these conveying a bad flavor to the milk and cheese; allowing the cows to run and heat themselves; driving them far to be milked, which inakes the milk froth much in milking; carrying the milk from the place of milking to the dairy; and allowing it to remain long after it is milked, before it is set with the rennet.

The greatest dependence is upon the dairy-maid; and the chief art of making cheese of the finest quality lies in her management. The superintendence of the dairy invariably devolves upon the farmer's wife. Mrs. HAYWARD attends to every minute circumstance in this department; and the following is a report of the information she has obligingly communicated to us respecting the whole economy of the dairy of this farm.

The management of a dairy should be conducted with the greatest regularity. Every operation should be performed precisely at the proper time. Either hastening or delaying the execution of it will cause cheese of an inferior quality to be made of milk from which the best may be obtained. A dairy-maid is selected for skill, cleanliness, and strict attention to her business.

Her work commences at four o'clock in the morning, and continues without intermission till bed-time.

Dairy-house.—The dairy-house should be kept at a temperature of between 50 and 60 deg.; and the dryer it is kept the better, as both milk and cream retain their sweetness much longer in dry than in damp air. Every time, therefore, the dairy is washed, it is dried as quickly as possible.

Around two sides of the dairy there are broad shelves, made of elm, for putting the vessels that hold the milk and cream, and the newly-made cheese upon. On another side there is a frame with three large stone cheese-presses. In the middle of the north side is the door; and in the corner, on the left, is the stair leading up to the cheese-lofts; and behind the door is a single cheese-press, which is generally used in pressing the cheese the first time, before it is cut down and put through the mill. In the middle of the floor stand three leaden vessels, large enough to hold the whey of one "meal," or milking; and by the side of these stands the cheese-tub.

Above the dairy there are two cheese-lofts, around the sides of which there are broad shelves for holding two rows of boards, called here "cheese-tack," which being only about eight inches apart, contain a much greater quantity of cheese than could be disposed on the floor. The stair to the cheese-lofts is of oak, and seems to be the pride of the dairy-maid, for it is dry-rubbed and polished so smooth that it is dangerous to walk upon; but this sort of pride is encouraged, as evincing an attention to cleanliness.

Along the north side of the dairy there is a shed, which communicates with the dwelling-house. In this shed the utensils are kept upon a stand for the purpose, the cream is churned, and other work performed, nothing being done in the dairy but the making of the cheese and the making up of the butter.

Opposite the door of the dairy, and detached from the shed, is a wash-house with a pump-well at the door of it. In this wash-house the water and the milk are heated in boilers for the purpose, and all cleaning work is performed.

Utensils.—The milking pails are made of maple, on account of the lightness of the wood and its cleanliness of appearance. They hold about six gallons each, and the cheese-tub is of a large size enough to hold the whole of the milk. The ladder, the skimming dish, and the bowl, are of maple. The sieve for straining the milk is about fifteen inches in diameter, and has a hair-cloth bottom.

There are a number of cheese-vats, sufficient to hold all the cheese made in four or five days. They are made of elm, and turned out of the solid. That which gives five cheeses to a cwt. is considered the best size for double Gloucester, the inside diameter of which is fifteen inches and a half, and depth four and a quarter; and this is considered the best for single Gloucester which gives eight to a cwt., the diameter within being fifteen inches and a half, and depth two and a half. Round boards, called "suity boards," made of elm, of the diameter of the cheese-vats, and thicker in the middle than at the edges, are occasionally necessary to place on the cheeses when in the press, if the vats are not quite full. Without the assistance of these boards, the cheese will be round in the edges (a proof of not being well pressed), and not so handsome.

The cheese-presses are made of stone, as being the cleanest material for the purpose, and of steadiest pressure. They weigh about 7 cwt. each; they are raised by a block and takle, and the whole apparatus is painted white.

From the whey leads, which are oblong, and about eight inches deep, there are leaden pipes which convey the whey into an under-ground cistern, near the pigs' houses, where by means of a pump it is raised when wanted for the pigs. Leaden keep the whey longer sweet than wooden vessels, and are much easier kept clean. This is done by scouring them with ashes of wood, and washing them well every time they are emptied, which is every thirty-six hours.

Tin vessels are used in preference to earthenware for holding the milk that is set for cream, and also for holding the cream. Those used for the cream hold about four gallons each, and are made with a lip for the convenience of shifting the cream from one of these vessels into another. This is done once every day during summer; and there is a wooden slice or knife always kept in the cream vessel, with which the cream is frequently stirred during the day, to prevent a skin from forming on the top of it, which is injurious to the quality of the butter. The skimming dish, used for taking the cream off the milk, differs

from that used in cheese-making, being made of tin, with holes in it to let the milk run out that may be taken up with the cream.

The butter-scales, prints, and butter-boards, are of maple. The boards for making up the butter in half-pound rolls are about one foot long and nine inches wide. The barrel-churn is made of the best oak, and great attention is paid to its cleanliness. The butter-milk is never allowed to remain in it, but it is washed, scalded and put up to dry as soon as the butter is taken out.

Milking.—This is performed in three separate courts, to which the cows come from their several fields. The milkings should be as near as possible at equal divisions of the day, commencing at about four o'clock in the morning and three in the afternoon. To each milker eight cows are assigned, and one man carries the milk from all the milkers to the dairy. The milking should be finished in an hour. The dairy-maid sees that the milkers do their duty, and that all the cows are milked clean; for the milk that comes last is the richest; and besides, if the cows are not clean milked, there will be a gradual diminution of the milk perceptible daily; for these reasons, the greatest care is taken that the cows are clean milked.

Cheese-making.—The cheese-tub being put in its place in the dairy, the ladder is put across it, and a large thin canvas cloth covers the whole tub and ladder to catch any of the milk that may drop from the pail, and to prevent dirt from falling into the tub. Above this and upon the ladder is placed the sieve, through which the milk is strained. If the milk should not be of the temperature of 85 deg., a portion of it is put into a deep tin, kept for the purpose, and placed in a furnace of hot-water in the wash-house, by which means the whole is warmed to a proper degree. It is of the utmost moment to attend to this; for if the milk is not warm enough when the rennet is put into it, the cheese will be "tender," and will bulge out in the edge, which spoils its appearance; and a great quantity of sediment of small curd will be found in the whey leads, which is so much curd lost. If, on the other hand, the milk is too warm, it will cause the cheese to "heave," or ferment, which injures both its appearance and quality.

When the milk is sufficiently warm, the coloring and the rennet are put into it. The coloring anatto is put in by rubbing a cake of it on a plate among the milk, until, from its appearance, it seems colored enough. One pound of anatto, at five shillings, is sufficient for half a ton of cheese.

The rennet being added immediately after the anatto is put in, the tub is covered with a woolen cloth for at least an hour. Rennet, or runnet, is made from the stomachs of calves, called here "vells." Irish vells are the best; they are cured and sent to England, and sold by the grocers to the dairy-farmers. Mrs. HAYWARD never uses them till they are twelve months old; for, if they are not old, the rennet made from them causes the cheese to "heave," and to become full of "eyes," or holes. She prepares the rennet from them by adding to every six vells two gallons of brine and two lemons. The lemons do away with any disagreeable smell, and give the rennet sweetness and agreeable flavor. Twenty or thirty gallons of it are made at a time, and it is found to be much better when made in large quantities. It should never be used until it has stood for at least two months.

When the curd is sufficiently firm for breaking, it is gently and slowly cut with a three-bladed knife, down to the bottom of the tub (the knife being about fourteen inches long), both ways or at right angles, and around the sides of the tub. The cuts should be about an inch apart. When it has stood five or ten minutes to allow it to sink a little, and the whey to come out as clear as possible, some of the whey is dipped out of it with a bowl, and the curd is cut a second time with the three-bladed knife—very slowly to begin with, for if the cutting is done hurriedly, a great sediment of a very small curd will pass through the sieve, and be found in the whey-leads, and there will also be an increase of the quantity of whey-butter which should have been in the cheese, and the value of the butter, thus obtained, will not compensate for the waste of curd, and for the loss of credit which the cheese will sustain from the abstraction of butter from it. The cutting being, therefore, performed very slowly at first, and with the strokes of the knife at a considerable distance from each other, is gradually quickened, and the strokes are taken nearer and nearer every time. At last one hand with the skimming-dish keeps the whole in motion, turning up the lumps suspended in the whey, while the other, with the knife, is in constant motion, cutting them as small as possible; and this operation is continued till no more lumps are brought to the surface; and the whole mass is reduced to one degree of fineness. This process may occupy a quarter of an hour.

The curd is now allowed to stand a quarter of an hour, and being thus sufficiently settled, the whey is taken from it with the bowl, and poured through a very fine hair sieve, placed over the whey-leads. When the greatest part of the whey has been separated from it, the dairy-maid, folding over a portion of it, and beginning at one corner, goes around the tub, cutting the curd in lumps, and laying them on the principal mass, by which operation the mass is carried all round the tub, and most of the remaining whey escapes between the cut fragments, as they lie and press upon each other. From time to time the whey is taken from the tub, and put through the sieve into the whey-leads.

The curd is then put into vats, and pressed down with the hand. The vats, being covered with cheese cloths about one yard and a quarter long, of fine canvass, are placed in the press for half an hour, when they are taken out, and the curd cut into slices, and put into a mill fixed on the top of the tub, which *tears* it into very small crumbs, as small as vetches. This mill, which is of Mr. HAYWARD'S construction, is a great improvement in the making of cheese, not only as it saves the dairy-maid the most laborious part of the process, that of squeezing and rubbing the curd into small crumbs with her hands, but as it allows the butter to remain in the cheese, which the hands squeeze out.

In its pulverized state, it is customary with most dairy-maids to scald the curd with hot whey, but Mrs. HAYWARD considers cheese richer when made without scalding the broken curd, this washing the fat out of it. She therefore, without scalding it, puts it into

the vats, and presses it closely together with the hand in filling them. In making double Gloucester cheese, particular care is taken to press any remaining whey from the curd as the vats are being filled, and they are filled as compactly as can be done with the hand, being rounded up in the middle, but just so much so as that the whole can be pressed into the vat. Cheese cloths are then spread over the vats, and a little hot water is thrown over the cheese cloths, which tends to harden the outside of the cheese and prevent it from cracking. The curd is now turned out of the vats into the cloths, and the vats being dipped into the whey to wash away any crumbs of curd that may cling to them, the curd, inverted and with the cloth around it, is again put into them. The cloths are then folded over and tucked in; and the vats, as they are filled, are put into the press one upon another.—The bottom of the vats are smooth and a little rounded, so as to answer the purpose of cheese-boards, which, therefore, are only wanted for the uppermost vats, or when the other vats are not quite full. The vats are allowed to remain under the press about two hours, when they are taken out and dry cloths are applied, which with double Gloucester cheeses should be repeated some time in the day.

Salting and Salting-presses.—The vats, when the clean cloths are given, as just mentioned, are changed from the single press to the one next to it, and placed in it, one upon another, as before. They remain in this press till the cheeses are salted, when those made in the evening take the place in the press of those made in the morning, and those made in the evening are, in their turn, displaced by those made the following morning; the cheeses of the last making being alway placed lowest in the press, and those of the other makings rising in it according to the priority of making. The same order is observed in the other two presses, the last or newest making in each being lowest, and each making having next above it that which was made last before it. The cheeses pass through the three presses in this order, advancing a step in their progress at each "meal" or making, till, at last, in four or five days they come out of the presses and are put upon the shelves.—They are generally salted at the end of twenty-four hours after they are made, though this is done by some at the end of twelve hours. The salting should never be begun till the skin is all closed; for, if there be any crack in the cheese at the time of salting, it will never close afterwards. The salting is performed by rubbing with the hand both the sides and the edge of the cheeses with finely powdered salt. The cheese, after this, is returned to the vats, and put under the press, care being always taken, according to what has been said, to put the newest cheese lowest in the press, and the oldest uppermost. The salting is repeated three times with the single, and four times with the double Gloucester, twenty-four hours being allowed to intervene between each salting. After the second salting, the cheeses are returned to the vats without the cloths, that the marks of the cloth may be effaced, and the cheese may get a smoothness of surface, and keenness of edge, which is a peculiarity of Gloucestershire cheese. The double Gloucester remain in the presses five days, and the single four; but in damp weather they should remain longer. The quantity of salt generally used is about three pounds and a half to a cwt. of cheese.

The Cheese-room.—When the cheeses are taken from the salting-presses, they are put on the shelf in the dairy for a day or two, where they are turned once in twelve hours. They are then taken to the cheese loft, to make room for the new ones. In the cheese-room, either on the floor or on the cheese-rack, they are turned once every day; and in general, in a month from the time they were taken out of the vat, they are ready for cleaning, which is done by scraping them with a common knife. The dairy-maid, in doing this, sits down on the floor, takes a cheese in her lap, and with the knife scrapes both sides and edge clean, taking off scurf they may have contracted. The cheese, if intended for the London market, as is generally the case when it has been thus cleaned, is rubbed all over with a paint made of Indian red, or of Spanish brown, or of a mixture of both and small beer. It is rubbed on with a woollen cloth. After being painted, it is turned over twice a week, and oftener in damp weather; and as soon as the state of the paint will permit, the edges of the cheese and about an inch of each side is rubbed hard with a cloth at least once a week.

Characteristics of true Gloucester.—The mark of true Gloucester cheeses are "the blue coat," which arises through the paint on their sides, and which is a sure sign of their richness and sweetness; the yellow, golden hue of their edges; a smooth, close, and wax-like texture; a very mild and rich flavor; not crumbling when cut into thin slices, nor parting when toasted, with the oily matter they contain, but softening when burning. If cheese has been soured in the making, either from being too long in hand, or from want of attention in scalding the utensils, nothing will cause it to assume the blue coat. If the curd is salted when ground down, before being put into the vats, the salt has the effect of giving a skin to each of the particles of the curd it comes in contact with, which prevents them from intimately uniting; and, although the curd may be pressed together and become good cheese, yet it never becomes a smooth, close and solid mass like that which is salted after it is made, but is of a loose texture, and crumbles when cut; and although it may be equally fat, yet in toasting the fat melts out of it, and the cheesy part burns. The skin of the cheese, too, is not tough and solid, but hard and brittle, and when examined, seems to be formed of many irregular portions, something like mosaic work.—*Farmers' Magazine.*

PRESERVING POTATO SEEDS.—C. S. JACKSON, of London, patentee. This invention is to preserve potato and other roots to be used as seeds, and to prevent them from being injured by rot, fungus, or worms. To do this, a solution of the sulphate of zinc is made up (about 1 lb. for 30 gallons water), and when cold the potatoes are steeped in it for a few minutes, then taken out, dried, and put past till spring, in a dry, cool place. This information may be very useful to many of our gardeners and farmers this year, in the preservation of choice seeds and roots.

A BAD man's dislike is an honor.

WHAT SHALL WE EAT?

If meat were furnished as cheap as water, it would be esteemed too severe a task to eat it during this hot weather. But when it costs so enormously, and has no special merit of wholesomeness to commend it, we certainly should be excused from its use. Still, if one has the money to spare for it, we will not object to its answering very well to keep the body in respectable condition. Beef, more than any other meat—providing it is from a healthy animal, and is not too tough—is wholesome. But then it is not needed by most people in summer. On the other hand, the meat-eater must sleep longer than the one who lets it alone. We doubt not that men who eat no meat get as much good out of six hours' sleep as they who eat it do out of seven, If so, here is a double waste—of money for the article, and of time to get over its effects.

But there is a class of alarmists who cry out against vegetables whenever an epidemic threatens to approach. They are strong enough in some cities to have secured the prohibition of the sale of vegetables in the markets and groceries, while the cholera prevailed. Their intentions were good, of course; but we shall not believe that ripe, fresh vegetables will prove injurious to mortals any more during an epidemic than at other times. Of course, unripe fruit, wilted and decaying vegetables, or unseasonable ones, will not be consumed with impunity; but we speak to sensible folks.

Potatoes that are potatoes—we mean potatoes that are not made up simply of a squashy pulp, with half their weight in water, surrounded with a dirty peel; but such as we occasionally find in market under the name of Pink Eyes, or Bermudas, which are plenty now, and the Mercers, which are always so—are good enough for the best conservative in town. Turnips are good, though there is not much nourishment in them. Cabbages, spinach, and "greens," of all sorts, are good only for those who never have found them indigestible. They should be eaten only under protest.

Rice is excellent, in milk or with sugar. Do not hinder the children from using the sugar freely. It fattens the slaves of the South, and will fatten them. Never believe that their teeth decay in consequence. Milk is excellent. It satisfies the appetite, is light, wholesome and cheap. Boiling the milk improves its flavor, ripens it, and makes it easy of digestion even for the sick. Simple puddings, fruit puddings, and pies, if not too rich, are economical and good. Then fruit in its season is worthy of thanksgiving. Strawberries are so plenty that they can better be afforded than meats, and they are as wholesome, as refreshing too. Bananas that are perfectly ripe, and not at all decayed, are safe. Pine apples furnish the palate with a perpetual illusion. You lay hold of one, and its delicious flavor promises great pleasure to the palate, but it seems to fail of meeting the demand exactly; and though you stuff with the woody, fibrous body of the apple till your judgment forbids any more, you still experience a craving for it. They are not worth what they cost to common folks.

Flour is the staple, after all. In bread and biscuits, cakes and puddings, the good housewife can manage to give flour a relishing and wholesome form, though varied daily. Moreover, it is about as cheap as anything we eat, in spite of the high market prices. Corn as Indian, corn as hominy, or corn as samp, is a national dish. Patriotism, economy, health, and a Yankee education, all combine to recommend it in all its forms, excepting perhaps that very delectable combination of it with beans, which men, in honor of the aborigines, still designate *succotash*. Given in a desert, corn enough, and the usual facilities for preparing it for the table, and no man has a right to ask for manna or quails. Cucumbers and their kind are very dubious; never should one eat freely of them—and it they ever have played a person a trick, he will do well to avoid them utterly. It is a great pity that their very pleasant flavor could not be extracted and communicated to some such harmless medium as mush, rice or Indian meal. If the Crystal Palace does well in its legitimate and promised work of stimulating human industry in all directions, perhaps it may be yet. We shall not patent the suggestion. Eggs fortunately fetch prices that can be afforded. They are very nutritious and very digestible, unless cooked to the consistency of bullets. We suspect that egg-fed men make the best thinkers, meat-eaters the best fighters, and strict vegetarians the whitest and most delicate members of society. Physiologists say that the human brain hungers always for phosphorus, and that when it is plentifully supplied, thinking comes easy. Now, phosphorus is plentiful in eggs, whence it seems to be a legitimate deduction that our suspicion is the truth.

Fish are for the edification of men in hot weather; but they must be fresh fish—as recently as possible from the water. Look sharp before buying them on Mondays, and on Saturdays too; they are apt to be the unsold remnants. Some citizens make free with salt fish in hot weather. It is a grave objection to them, however, that they provoke thirst, which must be quenched with immoderate draughts of cold water.—*New York Times.*

Cultivation of Tobacco in Africa.—The cultivation of tobacco continues to increase in a remarkable manner in the African possessions of France.—It results from the report of the Special Inspector of the tobacco manufactory to the Minister of War, that the delivery of the crop of 1853 amounted to 1,637,523 kilogrammes, valued at 1,436,926f., being an average of 87f. 78c. the 100 kilos. The importance of these returns will be seen by comparing them with those of the preceding year, which had already exceeded that of 1851 by 500,000 kilos., and was only 904,000 kilos.; so that there was an increase in 1853 of 733,000 kilos., nearly 100 per cent. The quality has moreover improved almost as much as the quantity has increased. In addition to the quantity above mentioned, received on account of the State, there have been consumed in the country 317,600 kilos., and exported 107,787 kilos., making the total production amount to 2,063,000 kilos.

None are so fond of secrets as those who do not mean to keep them; such persons covet secrets, as a spendthrift covets money, for the purpose of circulation.

PINE WOOD IN EASTERN VIRGINIA.

A correspondent of the *Richmond* (Va.) *Enquirer* writes as follows, in relation to the trade in pine wood in Surry county, the quantity shipped North, and the future prospects:

"Much has been written and said lately about the various resources of our State, its great agricultural resources, its iron, coal, gypsum, &c., &c. And even our Norfolk friends, perhaps ashamed of their want of enterprise and a proper commercial spirit, have been boasting much lately about 'feeding the North.' Instead of having ships from every clime riding in their harbor, they abandon their noble port and turn their attention to 'trucking,' raising peas and tomatoes for the Northern cities. Well, our wise lawgivers have much to answer for this state of things.—But to my subject. I propose to write you something about the trade that is carried on between us and the North in pine wood. This business has become of considerable importance, employing a great many laborers, thereby enhancing the price of labor, and injuring to some extent the agricultural interest, which is to be regretted. Let me tell, in the briefest manner possible, how it is carried on, hoping it may be interesting to some of your readers at least. The trees are felled and their trunks cut into pieces three feet ten inches long, which are mauled up and put in square pens to dry or season. Five of these pens, seven feet high, make a cord of wood, which is the slave's day's task, and all he chooses to cut over task he is paid for. After the wood is seasoned, it is then hauled to the river, whence it is shipped to the Northern cities, and nineteen-twentieths of it in Northern bottoms. We get three dollars and seventy-five cents per cord, delivered on board the vessel; all the wood is carried north of Baltimore—a vast quantity to the city of New York. From the best data to be had, there are more than a hundred vessels engaged in this trade, in James river alone, which are mostly schooners, carrying from eighty to two hundred and thirty cords at a load—averaging, perhaps, about one hundred and thirty cords. They make the round trip in a fortnight. Now, one hundred vessels, carrying a hundred and thirty cords each, and making twenty five trips a year, one would think it would take but a short time to exhaust the pine timber, but it is not so. There are millions of cords yet to be cut, the best timbered lands yielding as much as seventy-five cords of split wood to the acre. We should also remember that the pine is of rapid growth. Pine wood has been cut and shipped to the North which was scarcely twenty years old. So, if no substitute for wood be found, it will be fair to infer that this trade will be carried on for many years to come. The vessels generally return in ballast, but sometimes they bring on a cargo of hay, to feed the teams engaged in hauling the wood. Some will sneer at this, but free trade is my motto, not only between the States, but with the whole wide world. So, if they choose to buy our wood, and we their hay, let no one say nay."

FOOT-ROT IN SHEEP.—The application of double-distilled vinegar and sublimate of mercury, is said to be a remedy for foot-rot in sheep.

THE CALIFORNIA CROPS.

WE venture to assert that the potatoes that will lay upon the ground and rot in the San Jose Valley the present year, will count in bushels by millions. We saw one pile that was the length of eighty rails of a fence, ninety-six feet, about thirty feet wide, and some two feet above the fence, seemingly enough to supply the State. These, with vast quantities all over the county, and other counties also, will be lost, unless some plan is devised for using them.—*California Farmer.*

BARLEY.—This article, new crop, says the *San Joaquin Republican*, sold yesterday in our market at one and a half cents per pound, and we hear of sales being made at less than this figure.

WHEAT.—Mr. J. M. HORNER, of Alameda county, has 200 acres planted in wheat, which will yield nearly forty bushels to the acre. His threshing machine, which harvests twenty acres a day, will commence operations in a day or two.

The wheat crop in Los Angelos county is remarkably fine, and will yield much more than an average crop for several of the past years. Mr. REED, of the Puente, has an excellent crop of eighty acres of Australian wheat. We hear of no smut in the wheat in this section, and but little rust.

OATS.—In Eldrado county, in some cases the heads measure 28 inches in length, and has over six hundred kernels. These specimens were taken from a field on Dix's Rancho, and it is said that the entire crop is unsurpassed in size by any that has been heretofore noticed. Another sample, taken from the Somerset Ranch, measures over seven feet in length. The heads are twenty inches in length.

SHEEP RAISING IN VIRGINIA.—The *Charlottesville* (Va.) *Advocate* learns that many of the Piedmont farmers have determined to sow only small crops of wheat until the joint worm is eradicated, and to occupy their lands with raising sheep and growing wool. The demand for sheep in Eastern Virginia will afford a good market for the great surplus of the western and southwestern counties.

FEEDING FARM HORSES.—Sir JOHN CONREY, a large farmer near Reading, England, it is said feeds his farm horses as follows: 8 lbs. hay, 10 lbs. straw cut into chaff, 5 lbs. oats, 1 lb. bean meal, 1 lb. bruized flax seed steeped 48 hours in 15 pints of cold water. This quantity constitutes the whole food of each horse for twenty-four hours.

A CINCINNATI paper states that several thousand barrels of swine's blood are used in that city every year for making sweet wine.

"*Sweet* wine," forsooth!—may it not more properly be called *sow*-er wine—or, if you please, what a Dutchman would call "*hock*."—*N. O. Bulletin.*

NEVER trust a man for the vehemence of his asservations, whose bare word you would not trust; a knave will make no more of swearing to a falsehood than of affiming it.

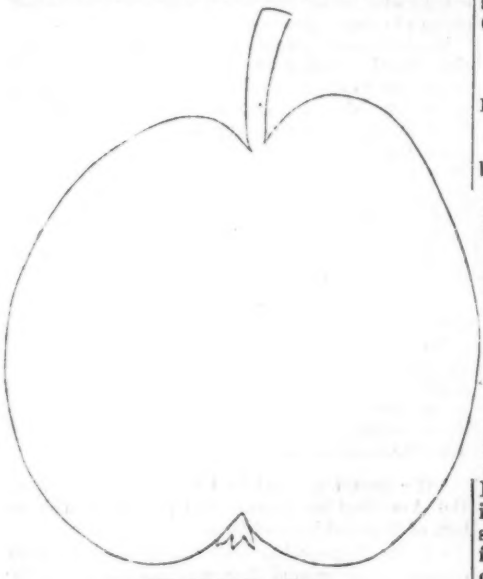
Horticultural Department.

CONDUCTED BY JOSEPH FROST.

THE SHELDON PEAR.

This pear has been cultivated in the vicinity of Rochester a number of years. It has been sold under different names, but was more widely disseminated as the *Oswego Beurre*, which is similar in appearance, in its wood and fruit, to the *Sheldon*. Both were believed to have originated in the same locality, as the scions were first brought from the East, and near the city of Oswego.

The mistake was soon corrected, however, as it was found that one sort, the *Oswego Beurre*, grew finely upon the Quince stock, while the *Sheldon* would not succeed, and could only be made to grow upon the Pear stock. This led to an examination; and it was ascertained that there were *two* distinct kinds, and



THE SHELDON PEAR.

the quality of one far superior to that of the other—the better one proving to be a new sort, and was named the *Sheldon*, from the name of a farmer living in the neighboring town of Penfield, who had grown considerable of the fruit. We have eaten of the fruit in its season the past four years, and think it to be "best." Many who have seen it, and who are well acquainted with the *White Doyenne*, *Seckel*, *Bartlett*, and other fine kinds, prefer it to any of these. Should it do as well in other localities as in this, it is deserving of extensive cultivation. Being an *American* seedling, it deserves to be commended far more than many European kinds that come to us with extravagant names and glowing descriptions.

In the *Horticulturist* we find the following good description of the fruit:

"Fruit—medium, or rather above medium size. The engraving is from a specimen of the average size.

"Form—generally roundish, but varying much; sometimes quite round, others obovate or inclining to oval; some taper to a point at the stalk, and others are as broad at the stalk as at the eye.

"Stalk—short, sometimes set on the surface, but generally sunk slightly, as in the outline.

"Calyx—medium size, in a smooth, round, rather shallow basin.

"Skin—smooth, usually of a greenish-russet; some specimens are tinted with light-red on the sunny side, some slightly bronzed, and others without any color.

"Flesh—remarkably melting and juicy, sugary and rich, with a sprightly and peculiar flavor, that is totally distinct from all other pears we have tasted. It is rather gritty at the core, and ripens and keeps remarkably well in the house.

"Tree—erect in its habit, and quite vigorous, with light yellowish shoots and prominent buds, much like the wood of the *Oswego Beurre*. It is hardy and a good bearer, but has not yet succeeded on the Quince."

NOTICES OF NEW BOOKS.

ELLIOTT'S FRUIT BOOK: or, the American Fruit-grower's Guide in Orchard and Garden. By F. R. ELLIOTT.

This work of Mr. ELLIOTT, of Cleveland, Ohio, has been promised some time. It appears in the form of a volume comprising more than 500 pages, numerously embellished with wood cuts. It is published in good form, by C. M. SAXTON, New York.

A new feature has been employed, by giving the characteristic and distinguishing forms of the seeds and seed vessels of the apple, pear, quince and cherry. This appears to us valuable, and promises to confer another method by which we may be able to ascertain the names and correctness of varieties. Further than this we cannot see that the least advancement has been made upon the works before published. It was expected that he would pursue a different course, and not follow in the well-explored path of other authors, but make it one of *character*. Being more of a Western man than any other author, it was presumed he would present much from that section, and give descriptions of the new Western fruits, which are in such great abundance, and the characteristics of the respective kinds, as well as the peculiar treatment they deserve in different localities. But we have nothing of the kind, excepting comparatively a very few instances.

Among Class 1, or list of fruits for general cultivation, we find in apples 74 varieties, among which are 10 Western sorts. Pears, 56 kinds for general cultivation, only 4 of them produced at the West, and those in the State of Ohio. Of cherries, in the same class, there are 30 sorts, 19 of which are new Western varieties, and all were produced in 1842, except in one instance, and that was not described till 1849. These 19 new kinds did not originate at various places throughout the West, but all in the garden of Prof. J. P. KIRTLAND, an intimate friend of Mr. ELLIOTT. Among peaches, there does not appear to be any in the class for general cultivation from the West; the same with plums, apricots and nectarines.

Among the smaller fruits there are strawberries; 6 only are suitable for general cultivation, and one is a seedling of Prof. KIRTLAND. Of raspberries, 17 varieties are in Class 1; 9 are seedlings produced by by Dr. BRINKLE and Col. WILDER.

In the class of fruits, there are many which are noted as being well adapted for general cultivation that are *new*, and it is quite doubtful if they have been fruited in half a dozen localities; while others, of the most reliable kinds, having been cultivated in all sections for many years, and have proved themselves to be first class in every particular, are placed as unfit for general cultivation, and worthy the attention only of the amateur.

Upon this point Mr. BARRY says: "It strikes us as rather strange that such varieties as Bethlehemite, Challenge, Cornish Aromatic, Fallenwalder, Fort Miami, Golden Ball, London Sweet, Melting, Richmond, Rome Beauty, and many others as little known as these, should be published as worthy of general cultivation, while such well-known sorts as William's Favorite, Summer Queen, St. Lawrence, Keswick Codlin, Holland Pippin, Pumpkin Sweet, Blue Pearmain, Twenty Ounce, &c., are classed as new and untested, &c., in Class 2."

Of pears, he says: "In the first class we find such varieties as Beurre Langelier, Brandywine, Black Worcester, Coit of Ohio, Doyenne d'Alençon, Honey, Kirtland, Knight's Seedling, Nouveau Poiteau, Soldat Laboureur Van Assche, and many such new and little-known sorts, while in the second class we find Andrews, Bloodgood, Paradise d'Automne, Bergamot Cadette, Beurre d'Amalis, Capiaumont, Duchesse d'Angouleme, Henry IV., Napoleon, Summer Franc-real, and several others of the very best and most widely-known varieties in cultivation."

Among cherries for general cultivation we find Dr. KIRTLAND'S new kinds—Black Hawk, Brant, Cleveland, Doctor, Delicate, Early Prolific, Governor Wood, Joe-o-sot, Kirtland's Mary, Kirtland's Mammoth, Late Bigarreau, Logan, Osceola, Pontiac, Powhatten, Rockport, Red Jacket, Shannon and Tecumseh—to the exclusion of the world-wide known sorts, such as Black Eagle, Yellow Spanish or Bigarreau, Holland Bigarreau, Knight's Early Black, May Duke, Napoleon Bigarreau, Elkhorn, and many others.

In the first class he enumerated no peaches, plums, apricots, &c., but those of Eastern origin.

Every one must view it as very singular, and fancy at first that some mistake was made in its arrangement when printed; but upon a careful examination we are led to believe that these are the sentiments of the author. Unless this work is speedily altered, it will produce much mischief that will take years to correct. At the West, where less opportunities have occurred to become acquainted with fruits, it will be viewed as authority, and the greatest mistakes may arise from it. In its present state, it would be far better for every planter of trees if such a work had never been published, as it is so full of errors and egregious blunders.

Already a correspondent of ours, from the interior of Indiana, has written us desiring a few hundred Cherry trees to plant, wishing to grow the fruit for market. He had in his possession this book, and had selected three-fourths of the quantity from Dr. KIRTLAND'S seedlings. We advised him at once of the error he had been led into, and the liability of others to follow the same course. We suggested the utter impracticability of a man producing nineteen varieties of cherries in *one* year which were worthy of general cultivation, while the same party could find only *eleven* out of two hundred sorts or more, which originated with others and at other localities, that were fit to be placed with his nineteen.

It would be quite immaterial, though these two hundred kinds had been the united production, aided by the experience, of eminent horticulturists of America as well of Europe, for the past fifty years, and had been tested in nearly every locality in the United States and Canada. This is truly a fast age, far out-stripping anything that our fore-fathers witnessed; therefore it is well for no one to be surprised at whatever may appear now-a-days. It is quite probable that Mr. ELLIOTT could produce in another year eleven more sorts, so that the only cherries fit to grow in the United States would all have originated under his fig tree, which would be truly honor enough to shine upon one man.

As a suggestion, would it not be well for the various Horticultural Societies in the United States to secure Mr. ELLIOTT'S services at once, thereby saving much time, labor and expense, and have him try his hand at *apples* the coming season, the next year *pears*, then *peaches*, and so on through the catalogue? Then we should have truly a fine array of fruits; it would also obviate the necessity of importing any further from Europe, as we would have a source that could be available at any time, by merely drawing for what was wanted. However fertile his imagination might then be, he would have enough subjects to which he could apply his Indian and other proper names.

The following we find in the August number of the *Horticulturist*, which was cut from the *Independent*, a popular newspaper in New York, edited by Mr. BEECHER, which touches some other points. After treating upon other matters connected with this publication, it says:

"We should be glad to let the matter rest here. But American horticulture and pomology suffer for lack of firm and just criticism.

"1. Mr. ELLIOTT has been led to make his book cover a larger ground than was needed, except for bookseller's reasons. Had he given a monograph on apples, or a thin volume devoted chiefly to the apple, the cherry, and the pear, and as a *catalogue raisonnee*, he would have shielded himself from just criticism; but there is no advance on Mr. DOWNING'S work which justified so large an undertaking, and in a literary view it falls far below it.

"2. For Mr. ELLIOTT has the unpardonable vice of *fine* writing—unpardonable in any body, and in any department of literature; but to the last degree unbecoming in a practical and scientific work; and rendered more ridiculous when attempted by persons who can not even write grammatically. Fine writing is the scrofula of literature. The only way to cure it is for the author to burn his manuscript.

"We are surprised that Mr. ELLIOTT'S publishers should not have urged him to entrust his MSS. to

some literary hand, to comb its tangled sentences, and pluck out its artificial flowers, and gaudy tail-feathers, stuck in without taste or conscience.

"A little of this tendency is to be found in Mr. Downing's work. Sentimental sweetnesses are quite in place in a treatise on the beautiful, and in works treating of landscape gardening; but the utmost frugality should be practiced in a treatise upon fruits. And if, in any degree, Mr. Elliott has sinned under the influence of Mr. Downing's genial and flowing style, it is time that the pomological world should pronounce its censure so distinctly upon such efforts, as shall create a law of propriety hereafter, otherwise we shall have books of fruit stuck all over with meretricious ornaments, like a confectioner's gewgaw at an absurd municipal dinner."

LONICERA FRAGRANTISSIMA.

LONICERA FRAGRANTISSIMA.

This is a sub-evergreen hardy shrub. Flowers whitish, very sweet scented. Native of China. Belongs to Caprifoils. Introduced by the Horticultural Society.

This is one of the plants obtained from China by Mr. Fortune, while in the service of the Horticultural Society, but has not flowered in the Chiswick Garden, where it has been merely known as a perfectly hardy "Caprifolium." In January, 1853, it blossomed in the garden of the Marquis of Salisbury, at Hatfield, whence Mr. William Ingram, the gardener there, sent us specimens, with the following note, on the 13th of April:

"The plant which affords me these flowers has been in bloom since January. It occupies an east wall, and has enjoyed no particular advantages of soil or treatment. The flowers appear with the earliest development of the leaves; and although not large or otherwise striking in appearance, compensate for any deficiency by their exceeding fragrance, combining the richness of the perfume of orange blossoms with the delicious sweetness of the honeysuckle."

Its evegreen foliage distinguishes it from all the previously-known species of the Chamæcerasus division of the genus.—*Paxton's Flower Garden.*

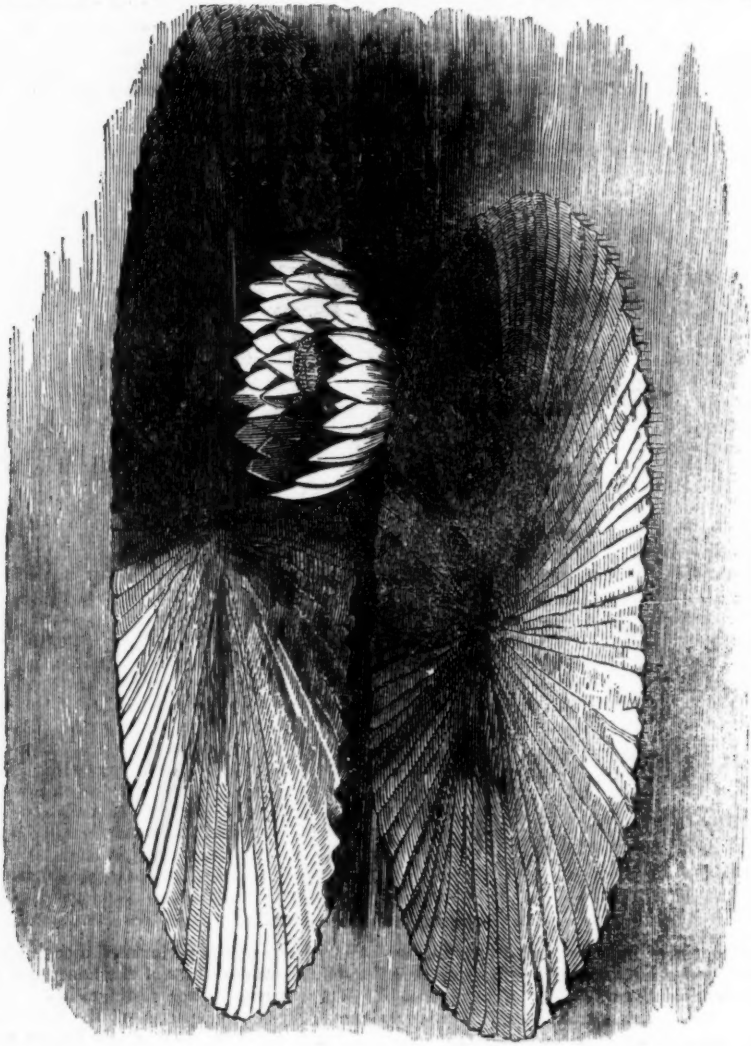
Grafting Pears on Mountain Ash.—A correspondent of the *Maine Farmer* says, that five years ago he grafted several *Bartlett* pears on Mountain Ash stocks. Last year one of them bore very full, more so than is usual on Pear stocks. The flavor of the pear is excellent, and not at all changed by the stock.

THE VICTORIA REGIA IN OPEN PONDS.

A successful attempt has been made by Messrs. John Weeks & Co., King's Road Nursery, Chelsea, to grow this magnificent plant in the open air. For this purpose was prepared a pond 21 feet in diameter, and 3½ feet in depth, wherein the lily was planted in loam and river sand, on the 3d of March, when it had three leaves, the largest being 18 inches in diameter. The plant has since increased in size, and has a robust and healthy appearance: the number of leaves upon it at present is seven, varying from 3½ to 4 feet in diameter; and, as the season increases in warmth, they will attain to a much larger size.

The petioles of the leaves are from eight to twelve feet in length, throwing them a considerable distance from the base of the plant.

The first flower partially expanded on the evening of the 16th inst.: for some hours previously it gave out a very rich and powerful fragrance, which could be perceived at a considerable distance. The flower became fully expanded on the following evening, and displayed all its beauties to an admiring company, who had been for a considerable time watching its development. The colors of the lily are white and pink; the outer rows of petals being white, and the inner a rich pink. The entire flower is from nine inches to a foot in diameter: it is of short duration, opening only on two successive evenings; but there is a constant display of flowers throughout the season. The plant has a more noble appearance in the



VICTORIA REGIA IN OPEN PONDS.

open air, than when growing in the hot-house aquarium—the leaves becoming hypocrateriform, a natural desideratum of much interest.

The pond in which the plant is growing is heated by hot water pipes, of which there are two rows placed at the bottom, communicating with a boiler which heats, besides, a range of houses, the temperature being thereby kept at from 75 to 90 degrees Fahrenheit. There is a constant flow of clear water into the pond, and a waste pipe to carry off the superabundance and keep the surface clear. A margin of blue, yellow and white water-lilies, is placed round the *Victoria Regia*, and tends to show well their lovely and truly regal Sovereign in all her majesty. A temporary covering is placed over the plant at night to protect it from storm and cutting winds.

The *Victoria Regia* has been an object of unceasing interest from the moment of Sir ROBERT SCHOMBURGK, in 1837, finding this magnificent plant in one of the rivers of British Guiana. In England the *Victoria Regia* first flowered in 1849, and the *spectacle* was engraved in the *Illustrated London News* for Nov. 17. A leaf and flower of this plant, it will be recollected, was presented to her Majesty and Prince ALBERT, at Windsor, by Mr. PAXTON; and the train of circumstances by which this very plant was mainly contributary to the success of the great exhibition is so interesting as to merit recapitulation. We give it in Mr. PAXTON's own words:—"Having in contemplation the erection of the great conservatory at (Chatsworth) in its present form, it was determined, in 1836, to erect a new curvilinear hot-house, 60 feet in length and 26 feet in width, with the elliptical roof on the ridge and furrow principle, to be constructed entirely of wood, for the purpose of exhibiting how roofs of this kind could be supported. The plan adopted was this—the curved rafters were composed of several boards securely nailed together on templets of wood cut to the exact curve; by this means a strength and firmness was obtained sufficient to support an enormous weight.—This house was subsequently fitted up for the *Victoria Regia*; and it was here I invented a water wheel to give motion to the water in which the plant grew; and here this singularly beautiful aquatic flowered for the first time in this country, on November 9, 1849. You will observe that *nature was the engineer in this case.* If you examine this, and compare it with the drawings and models, you will perceive that nature has provided it with longitudinal and transverse girders and supporters, on the same principle that I, borrowing from it, have adopted in this building."—*Illustrated London News.*

IT is estimated that the grape crop of Ohio and Pierce Townships, in Clermont county, Ohio, reaches between fifty and sixty thousand dollars annually.—Last year is the only one which proved entirely successful in the culture of the grape, but the prospects are quite fair for the present season. Mr. WEIR, the largest grape grower in the vicinity of New Richmond, informs us that he made thirty-three hundred gallons of the juice, in 1853.

CANDOR and open dealing are the honor of man.

BLACK AND WHITE "BLACKBERRIES."

The following article, relating to the *New Rochelle* blackberry, is probably mistaken in calling a distinct species. Most likely it is merely a peculiar variety, no more different from the ordinary varieties than a winter from a summer pear. It is well known that in its wild state the fruit of the blackberry naturally runs into varieties, a circumstance which points it out as likely to be easily improved by a selection of seedlings. On some bushes the fruit is found with large grains and of an acid taste; on others it is long, like a mulberry, with small grains and very sweet.—We have seen a bush growing wild, with fruit quite white when ripe.

The blackberry is cultivated with success in the neighborhood of Boston. In Illinois they transplant the blackberry from the river bottoms to the gardens on the uplands, where it produces abundantly.—*N. Y. Post.*

"NEW ROCHELLE BLACKBERRY.—We saw yesterday a specimen of this delicious fruit—the larger circumference of which sometimes reaches four inches, and the smaller three. It is more delicate than the wild variety in substance and flavor, and as a table fruit we know of nothing in its season that surpasses it.—It is not the ordinary wild blackberry improved by cultivation, but a distant species, producing in its natural state a much larger and more palatable fruit. It was first discovered in 1834, near *New Rochelle*, but not transplanted to the garden till three or four years later, since when it has continued to produce profusely the remarkably large berry above described. The plants are for sale, at fifteen cents a hundred, by Mr. ISAAC ROOSEVELT, of Pelham, Westchester co." —*Jounal of Commerce.*

LONDON CURRANTS.—A writer in the *Horticulturist* speaks of the fine currants of the market-gardens near London, which are grown in the following manner: They are planted in rows, twenty or thirty feet apart, and three or four feet apart in the rows; the ground, which is naturally good, is highly manured, and cropped between with vegetables. When the plants commence bearing, they are pruned very hard; the greater part of the young wood is thinned out, and what is allowed to remain is shortened back to two or three inches. By this means the trees are always kept short, never attaining a greater height than two or three feet. These strong manured and well-pruned trees produce magnificent fruit, and in great abundance, well remunerating the market gardener for his trouble.

DISEASED APPLES.—A writer in the *Maine Farmer* describes a new disease which has destroyed his apples for sume years. When they are the size of robins' eggs, a black mold seizes upon them and spreads over them, stopping their growth. A few escape altogether. We judge it to be some microscopic fungus; but why does it attack this orchard and not others? Have any of our readers ever seen the like?—*Farmer's Companion.*

HE who would be wise must strive to learn.

Ladies' Department.

DOMESTIC RECIPES.

Tomato Pickles.—Take tomatoes two-thirds ripe (when they begin to turn a little red), prick them with a fork, put them in a strong brine, and let them remain eight days; then put them in weak vinegar to remain twenty-four hours; remove them from this, put them in stone jars; and to a peck of tomatoes add a bottle of mustard, an ounce of cloves, and an ounce of black pepper ground, laying alternately a layer of tomatoes and spices. Then pour on strong vinegar cold, and they will be found to be delicious. The brine should be prepared by boiling and putting in as much salt as will dissolve, then suffered to cool. For any kind of pickles it is best when prepared in this way.

Another.—Take the small round tomatoes, let them lay in weak vinegar two or three days; then prepare the best of vinegar by putting in cloves, allspice, pepper, cinnamon, and such spices as one may fancy, and then scalding it well. When entirely cold, put in the tomatoes, and if there is sufficient body to the vinegar, your pickles will never require any further trouble, providing they are kept from the air.

Green Corn Soup.—Cut the corn from the cob (sweet corn to be preferred); put it into a stew-pan, with a quart or more of sweet milk; add a teaspoonful of salt; let it boil gently for half an hour, then add a bit of sweet butter the size of an egg, and pepper to taste; and serve with rolls or toast. This may be eaten with nutmeg or mace, to flavor it.

To Keep Green Corn.—Take ears of a right age for boiling; pull off the outside husks, leaving only the thin one next to the corn. Tie the husks over the end with a thread, pack the ears in salt, and set them in a cool, dry place. They will keep till mid-winter.

To Keep Pickles.—Keep pickles only in wood or stone ware; anything that has held grease will spoil pickles. Stir them occasionally, and if there are soft ones take them out and scald the vinegar, and pour it hot over the pickles that are in a solid state. Always keep enough vinegar on them to cover them well. If it is weak, take fresh vinegar and pour it on hot. Do not boil vinegar and spice over five minutes.

To Make Fine Pancakes, Fried without Butter or Lard.—Take a pint of cream and six new-laid eggs; beat them well together; put in a quarter of a pound of sugar and one nutmeg or a little beaten mace—which you please, and so much as will thicken—almost as much as ordinary pancake flour batter; your pan must be heated reasonably hot, and wiped with a clean cloth; this done, spread your batter thin over it, and fry.

Rock Cakes.—Mix together one pound of flour; half a pound of sugar; half a pound of butter; half a pound of currents or cherries, and four eggs, leaving out the whites of two; a little wine and candied lemon-peel are a great improvement.

Ginger Snaps.—Beat together half a pound of butter and half a pound of sugar; mix with them half a pint of molasses, half a tea-cupful of ginger, and one pound and a half of flour.

Cup Cakes.—Mix together five cups of flour; three cups of sugar; one cup of butter; one cup of milk; three eggs, well beaten; one wine-glass of wine; one of brandy, and a little cinnamon.

Gingerbread.—Mix together three and a half pounds of flour; three-quarters of a pound of butter; one pound of sugar; one pint of molasses; a quarter of a pound of ginger, and some ground orange peel.

Jumbles.—Take one pound of loaf sugar, pounded fine; one pound and a quarter of flour; three-quarters of a pound of butter; four eggs, beaten light, and a little rose-water and spice; mix them well, and roll them in sugar.

Sponge Cake.—Take the weight of the eggs in sugar; half their weight in flour, well sifted; to twelve eggs, add the grated rind of three lemons, and the juice of two. Beat the eggs carefully, whites and yolks separately, before they are used. Stir the materials thoroughly together, and bake in a quick oven.

Substitute for Cream.—If you have not cream for coffee, it is a very great improvement to boil your milk, and use it while hot.

PROVERBS ON WOMAN.

When cats wash their faces, bad weather is at hand; when women use washes to their complexions, it is a true sign that the beauty of the day is gone.

Choose not your wives as you do grapes, from the bloom on them.

How many women have been ruined by diamonds, as bird catchers entice the lark from heaven to earth with sparkling glass.

Like the colored bottles in a chemist's window, is rouge on the cheeks of a maiden; it attracts the passers by, but all know the drug they advertise.

He who marries a pretty face only, is like a buyer of cheap furniture—the varnish that caught the eye will not endure the fire-side blaze.

The girdle of beauty is not a stay lace. This is the excuse for tight lacing: a good housewife should have no *waste*.

When a maiden takes to spaniels and parrots, it means that her beauty has gone to the dogs, and henceforth her life is a *bird*-en to her.

Many powder their faces that their skins may seem white; it is as a poulterer flours an old hen, that it may pass for a tender chicken. The stepping stone to fortune is not to be found in a jeweler's shop.

An Agricultural Princess.—Princess Murat, wife of Achile Murat, son of King Joaquin, at Naples, has a residence near Talahassee, Fla., whence she recently sent the *Florida Sentinel* a new potato weighing fifteen ounces. Her husband is a Floridian by choice, but we believe is now in Paris.

Editor's Table.

AGENCY IN NEW YORK.—C. M. SAXTON, Agricultural Book Publisher, No. 152 Fulton street, New York, is agent for the GENESEE FARMER, and subscribers in that city who apply to him can have their papers delivered regularly at their houses.

QUEER LOGIC FOR AN EDITOR.—Under the above heading the *Country Gentleman* of August 17th devotes something over a column to comments on our remarks on what its correspondent, Mr. S. W. JOHNSON, said about the worthlessness of soil analyses for practical purposes. We copied two consecutive paragraphs from Mr. J.'s article that no injustice should be done to him by a misstatement of his views—allowing him to state his facts and opinions in his own words, to all our readers.

The *Country Gentleman* has treated us with no such fairness. It denies both its readers and "Dr. LEE" the benefit of seeing in that print so much as one whole sentence of what we did say. Such conduct is generally regarded as dishonorable in editorial discussions. Nothing that we said is disproved; nor is the palpable self-contraction by Mr. JOHNSON explained so as to make his article consistent with itself. We are well aware of the existence of much humbug and error in the analyses of soils and manures; but this fact no more detracts from the true merit and value of such chemical researches than the existence of hypocrites in churches detracts from the importance of true piety and genuine christianity. To condemn a whole religious society *en masse* for the offence of one of its members is as illogical as it is unjust. Let every thing that is erroneous and wrong in soil analyses be exposed and corrected; but do not hastily condemn and repudiate all investigations of this character. The *Country Gentleman* says: "A young farmer lately informed us that he had lost seven hundred dollars by *false expectations* held out to him through the teachings of the GENESEE FARMER under the auspices of Dr. LEE."

Will the *C. G.* be so good as to give us the name and residence of this unfortunate "young farmer," that we may learn the exact language in this Journal on which he based his "false expectations?" It may turn out that he was over-sanguine—that a lack of experience and sound judgment was the true source of his loss—not "the teachings of the GENESEE FARMER." Where one imprudent man has suffered loss by following its advice, a thousand wise men acknowledge themselves gainers by so doing.

WHAT IS BUTTER LAND?—An agricultural address delivered by the Hon. A. B. DICKINSON, of Corning, N. Y., before the Tioga County Agricultural Society, has been much praised for its practical good sense, and exemption from theories. Mr. D. says:

"The first quality of *butter land* is confined to portions of the New England States, New Jersey, Pennsylvania and New York, while cheese can be made and sheep grown wherever grass grows."

Here the agricultural public is favored, by a professed theory-hater, with a somewhat greasy theory about "butter land." It exists in portions of New England, but not in Ohio, Indiana, Michigan, Illinois, Wisconsin, or Iowa. They may have fat land—pork and tallow land—but not land adapted to the production of butter! This nice distinction reminds us of a meeting at the Court House in Buffalo, at the time the State Fair was held in that city, at which the Hon. A. H. TRACY presided, and Prof. NORTON, of Yale College, delivered by request a very instructive lecture on the principles of agriculture. Every one appeared to like the clear and sound teachings of the college gentleman but Mr. A. B. DICKINSON, who assailed Mr. NORTON in a rude and most offensive manner. Instead of understanding the subjects which he undertook to discuss, it was a marvel to all who heard him how it was possible for any man in this State to accumulate, in one short life time, such a mass of unadulterated ignorance as he displayed on that public occasion. NORTON, TRACY and others used him up, so that we have heard nothing of him since, in an agricultural way, till the address above referred to was delivered and printed.

Speaking of "the very best quality of butter," Mr. D. says:

"You have here all the elements for making just that kind of butter. To begin with, you must have in your pastures timothy, white clover, blue grass, red top, or foul meadow grass, which I think is one and the same thing, only differing as it grows on different soils, pure soft water, and a rolling or hilly country. All these things you have, or may have, as these different grasses will all grow well, if sowed and properly cared for; and I have never seen the first pound of good butter made where the cow did not feed on some or all of these grasses; and it cannot be made from these until they have been sown long enough to have the soil swarded over, to protect it from the sun, frost and drouth."

More theory again. Hundreds of our best dairymen get the first quality of butter when feeding their cows on green corn forage, grown by sowing the seed broadcast, on purpose to extract butter from "butter land."

UNIVERSITY OF GEORGIA.—The following is an extract from the minutes of the Board of Trustees of the University of Georgia, in session August 2, 1854:

"*Resolved*, That there be now established in Franklin College a new Professorship, with the endowment of *twenty thousand dollars*, now presented in Bonds of the State of Georgia by Dr. WILLIAM TERRELL, of Hancock county, to the support of which the interest arising thereon annually shall be exclusively applied—to be known and designated as the 'TERRELL PROFESSORSHIP OF AGRICULTURE,' wherein instruction shall be given, as hereinafter provided, in the branches of knowledge designated by the Donor.

"*Resolved*, That in accordance with the suggestion of the Donor, Dr. DANIEL LEE, of the State of New York, be and he is hereby *unanimously* appointed to fill the 'Terrell Professorship of Agriculture,' to enter upon his duties on the fifteenth day of January, 1855."

The University of Georgia has the first liberally endowed Chair of Agriculture that has been established in the United States. Mr. NORTON gave $5000 for a similar purpose to Yale College, and thereby provided an honorable and useful place for his son, who was appointed to the Professorship created by the liberality of his father. No other man before Dr. TERRELL has given so much as Mr. NORTON to promote agricultural science in this great nation of farmers. Dr. TERRELL's noble example can hard-

ly fail to be followed by others who, having ample means, shall wish to identify their names, in all coming time, with the wise cultivation and progress of Rural Knowledge.—Not one professorship only, but six or eight ought to be established in a single University, so as to divide the labor of teaching all those natural sciences most intimately connected with the important arts of tillage and husbandry. These sciences are in feeble infancy, and greatly need, as they pre-eminently deserve, the fostering aid of private munificence and public countenance.

Whether the writer shall give lectures on Agriculture in the University of Georgia or not, he will not be separated from his old friends, the readers of the GENESEE FARMER. We owe them a debt of gratitude which will only be cancelled when life's labor is past.

VETERINARY KNOWLEDGE.—There is at this time full seven hundred million dollars invested in domestic animals in the United States; and a knowledge of their diseases—their cure and prevention—is a matter of great importance. Veterinary science is universally neglected in this country, and likely so to be, until some sweeping pestilence shall attack our live stock and carry off large numbers. There are, however, a few sagacious stock-growers who begin to appreciate the wisdom of encouraging the careful study of this profession; and such will read with pleasure the several articles in this number of the FARMER on "Bloody Murrain," "Red Water," "Foot-rot in Sheep," and "Rumination," which have been compiled from the latest and best authorities. The principles of the Healing Art are the same in all warm-blooded animals, whether man or brute; and we shall take pains to develop them in the plainest possible manner for the instruction of all who take an interest in the *laws of health* in living beings.—No one is so high or so strong as to stand above these natural laws; and we respectfully commend their study and observance to every reader.

COUNTY AGRICULTURAL FAIRS.—Every farmer should feel an interest in some local association for the improvement of agriculture. If, unfortunately, there is no one near his residence, no time should be lost before the organization of such a Society. In perhaps a majority of counties in the Northern States, such institutions already exist; and we commend them to the care and patronage of every friend to his country. Farmers are too apt to isolate themselves from their brother tillers of the soil. Cultivate more social intercourse, that all may learn more, and in turn teach their neighbors and the public more than they now do.

VALUE OF KENTUCKY FARMING LAND.—The *Paris Flag* says that JOHN HANNAH sold his farm, near Millersburg, Bourbon county, Ky., a few days since, to THOMAS T. VIMONT, for one hundred dollars per acre. The price of land in Bourbon, Fayette, and other counties in that region of Kentucky, is rather on the advance than on the decline. First rate land in either of those counties, it is stated, will never be worth less than one hundred dollars per acre.

AN EXPERIMENTAL AND MODEL FARM.—It gives us unaffected pleasure to learn from the *Southern Farmer* (a weekly and valuable journal published at Petersburg, Va., at $1 a year), that $5000 have been subscribed, with a promise of much more, to establish an Experimental and Model Farm. A Union Agricultural Society, whose members reside partly in Virginia and partly in North Carolina, of which JAMES C. BRUCE, Esq., Halifax, is President, has taken hold of this enterprise with a commendable spirit. Mr. B. has given $1500, and several $500 each. The *Southern Farmer* says:

"As soon as fifteen thousand dollars is subscribed, every man is bound for the sum affixed to his name. If, however, that amount should not be secured by the 1st of December, the obligation is to be no longer binding. When a farm is purchased, it is to be placed under the control of the Union Society. We cordially commend the scheme to the consideration and patronage of the agricultural community in both States."

And so does the editor of the GENESEE FARMER. Let the intelligent cultivators of the "Old Dominion," and of the "Old North State," enjoy the high honor of establishing the first Experimental Farm in the United States. The achievement will redound to their enduring honor in the history of the Progress of Agriculture in this Republic.

THE ANNUAL FAIR.—Governor WRIGHT, of Indiana, has been invited to deliver the annual address before the New York State Agricultural Fair in October next. The American Institute having omitted their annual exhibition, to unite with the State Society, the result of their joint efforts can hardly fail to be interesting and attractive.—Hamilton Square, which comprises eighteen acres of ground, has been tendered by the Corporation for the use of the Society, and will be enclosed and arranged in an appropriate manner for the exhibition of stock, goods, &c. The amount of premiums embraced in the list exceeds $8,000. The fixtures at the show grounds are to be in readiness by the 25th of September, and the exhibition will open on the 3d of October, and continue four days.—Admission 25 cents.

DROUTH AND CROPS IN KNOX CO., IA.—An esteemed correspondent in West Union, Indiana, writes as follows:

"We have had in this section the warmest and dryest season I ever saw. The spring was rather wet, with the Wabash out of its banks oftener and much longer than usual. About the middle of May it set in dry, and we have not had the ground thoroughly wet since.—indeed, but very few showers. Wheat was considerably injured by the fly last fall, and is in general light; oats, good stalk, but light and chaffy; but corn and potatoes are nearly an entire failure. Some of our old farmers here say the prairie will not average ten bushels of corn to the acre, even if we should have rain from this time forward. This prairie (Shaker Prairie) is celebrated as a fine corn country, and that justly too; but this season our staple is a failure. Very Respectfully, Yours, &c.,

"D. H. MORGAN."

VALUABLE REAL ESTATE FOR SALE.—The reader's attention is called to the advertisement of E. H. SMITH, Esq., in this number of the FARMER, in which valuable real estate in Dinwiddie county, Va., is offered for sale.

CURE FOR COLIC IN HORSES.—A correspondent sends us the following:

"Take a pint or more water, and salt enough to make a very strong brine; then wash each side of the back bone just in front of the hip, say over the kidneys; the animal will be relieved in a few minutes. I have seen a horse so bad that I thought it would never get up again, and in fifteen minutes after using the brine it was ready for plowing again. I first heard it must be whiskey and salt, but I have never seen anything but water and salt used.

"Yours, with respect, C. J. F. MOSHER.

"BRIGHTON, Monroe co., N. Y."

THE GENESEE FARMER.—This able and interesting monthly journal of agriculture and horticulture has now reached its *fifteenth volume* (second series), which, we may add, indicates a degree of prosperity that has been attained by no other publication devoted to like objects in this country. We remember to have seen it welcomed and read in one family, at least, from the time we were a school boy; and although many other papers have flourished and passed away since then, we can still hail the monthly return of that old friend "THE GENESEE FARMER," whence we derived our first notions on the subject of Scientific Agriculture. It is one of the really valuable publications of the day, and ought to be in the hands of every farmer and horticulturist, who, for a trifling expenditure, desires to reap an hundred fold in useful and valuable information.

We recommend this journal as the cheapest and one of the best in the country on the subject to which it relates. —*The Covington Kentuckian.*

STATE FAIRS FOR 1854.

Illinois, at Springfield,	Sept.	12 to 15
Vermont, at Brattleborough,	"	13 to 15
Ohio, at Newark,	"	19 to 22
Michigan, at Detroit	"	26 to 29
Pennsylvania,	"	27 to 29
Missouri, at Boonville,	Oct.	2 to 6
New York, at New York city,	"	3 to 6
New Hampshire,	"	3 to 6
Maryland, at Baltimore,	"	3 to 6
Indiana, at Madison,	"	4 to 7
Wisconsin, at Watertown,	"	4 to 7
Connecticut, at New Haven,	"	10 to 13
Georgia, at Augusta,	"	23 to 28
Iowa, at Fairfield,	"	25
Lower Canada, at Quebec,	Sept.	12 to 15
Springfield Cattle Show, Ohio,	Oct.	25 to 27

CIRCULAR—UNITED STATES AGRICULTURAL SOCIETY.—At a meeting of the Executive Committee of the United States Agricultural Society, held in the City of Washington, in February last, it was resolved that the Society would hold no Exhibition in any State having a State Agricultural Society, without the assent of the Officers, or of the Executive Committee of such Society.

The citizens of Springfield, Ohio, having requested this Society to hold an Exhibition of Cattle, at that place, during the current year, and generously subscribed about *ten thousand dollars* to defray all the expenses of the same, and to guarantee the Society against loss, and the Executive Committee of the Ohio Agricultural Society uniting in the request, the Executive Committee of this Society have concluded to hold a NATIONAL SHOW OF CATTLE, open to general competition, without sectional limit, on the 25th, 26th and 27th days of October next, at Springfield, in the State of Ohio.

The friends of Agriculture in all the States of the American Union, and in the neighboring provinces of Canada, are invited to co-operate with us, so that this Exhibition may be the more extensively useful, and be alike creditable to the generous citizens of Springfield, with whom it originated,—to the contributors and visitors, who sustain it,—and to the United States Agricultural Society, who are so deeply interested in its success.

In consequence of the holding of this Show of Cattle, the contemplated Exhibition of Horses, at Springfield, Mass., and the Show of Sheep, in Vermont, will be omitted.

The Journal of the Society, which the Executive Committee have concluded to issue once in each year—will appear in January next; and will contain the Transactions of the Society at its last Annual Meeting, the Lectures and Addresses delivered at that time, a full and faithful account of the Springfield Show, with other valuable papers, by eminent members. This volume will be forwarded to all members who have paid their annual assessments for the year 1854. MARSHALL P. WILDER, President.

WILLIAM S. KING, Secretary.

BOSTON, August 1, 1854.

Literary Notices.

THE EDINBURGH REVIEW, July, 1854, No. 203. New York: LEONARD SCOTT & Co.

This venerable and valued periodical has attained its one hundredth volume. It is still edited with marked ability, and its contributors are among the most finished writers of the day. The subjects selected for discussion are those with which not only Englishmen, but Americans should be familiar. The present number has two elaborate articles on the Russian Question, and another on the Rights of Commerce under a state of War. The first is a sketch of the diplomatic history of the Eastern Question. II.—Tea-totalism (we observe Worcester spells it *Tee-totalism*) and Laws against the Liquor Trade. III.—Hermann's Æschylus. IV.—The Kafir Wars and British Policy with reference to the Cape Settlements. V.—The relations between Labor and Capital. VI.—The Orders in Council on Trade during War. VII.—The relative rights of Majorities and Minorities. VIII.—Emigration to the United States. IX.—The Russian War.

The article on the relations between Labor and Capital is a review of MORRISON's Essay on the same subject, and one of the ablest that has ever been written on "the great social question."

The *Westminster Review* for July is also on our table, and filled with valuable and interesting reading matter.

THE HALF-YEARLY ABSTRACT OF MEDICAL SCIENCES, published by LINDSAY & BLAKISTON, Philadelphia, is well worthy of the notice and the perusal of those having the care of the public health. So many medical journals are now published in different parts of the world, and so many new facts in illustration of the various types of disease, that it has become almost indispensably necessary that the wheat be sifted from the chaff and published in a form convenient for reference and use. No. XIX. contains an interesting article on the treatment of Intermittents, by Dr. BRYAN, of the African Naval Squadron, England.

We are indebted to Messrs. Fowlers & Wells for the serial numbers of a work entitled *Fruits and Farinacea the Proper Food of Man.* Without endorsing the positions of the author, we can unhesitatingly recommend to all to purchase the above; for the information respecting the uses of the different articles of diet will repay a careful and repeated perusal. Animal food, as population increases and land appreciates in value, is gradually becoming dear and dearer in price; and if good substitutes for the same can be found, the purse of every one who has a family to provide for will thank the author for his well-intentioned effort.

We have received from Messrs. Burgess & Co., N. Y., a copy of *Tower's First Lessons in Language.* From a brief cursory examination of the work, we are much pleased with its illustrations of the formation of sentences and the mutual dependence in a sentence. A brief extract from the preface is very much in accordance with our own opinion:

"The child who says that 'William is *gooder* than John,' has learned the *regular* formation of the comparative degree, and is ignorant only of the *exception.* When he says, 'mans' for 'men,' and 'runned' for 'ran,' he shows that he recognizes the regular formation of the plural of nouns, as well as that of the past tense of verbs. He has already begun to make a grammar of the language, and merely wants encouragement and guidance to accomplish his task."

The Stranger in the Synagogue, by S. Tuska, published by E. Darrow & Brother, is an intercsting compend of the peculiar rites and ceremonies pertaining to the Jewish Church. From a personal acquaintance with the author, we know the work above noticed may be relied on as accurate and authentic.

Kenyon's English Grammar, published as above, has been submitted to our inspection. From a very brief examination, we judge that the design, as explained in the preface, to make *thorough* scholars, has been faithfully carried out by full and copious examples of the phraseology and structure of the language. We heartily agree with the author that "it is a misnomer to speak of English Grammar simplified." "True, one mode of presentation may be more natural, and hence more simple than another;" but whoever would acquire a mastery of our noble tongue, must not expect to find any royal road to its acquisition.

Inquiries and Answers.

(A. H. A., New Bethlehem.) We have no multicole rye, and doubt whether any is grown in this vicinity.

Our old friend and legislative associate, the Hon. N. Coe, who has been three years in Oregon, wishes to "obtain a machine for pulling out stumps." If the stumps in Oregon have roots to match the size and length of the trunks of trees, according to some accounts of the latter that we have seen, it will require a powerful machine to extract them. The best in use in this country can be made there cheaper than to transport them. We will send drawings and a description of the same.

Dr. Plessmer, Saganaw City, Mich., wishes to learn what kind of Willow is best for a hedge on "a rather wet clay soil." Will some one who is acquainted with the subject be kind enough to give Dr. P. and others the information sought? He says that cattle eat the kinds growing spontaneously there. If not well fed, they will doubtless browse off every variety of this plant.

Sorrel.—As all subjects relatinng to agriculture are freely discussed in the Genesee Farmer by yourself and others, I feel the more free to make some inquiries upon a subject that deeply interests others as well as myself, viz.: The cause, and also the cure, for the appearance of sorrel on our tilled lands. My soil is a gravelly loam, with a gravelly subsoil; and for the last two or three years I have had to keep up a constant warfare with the plow—and what is worse, the fact is constantly staring me in the face that I am like to be worsted in the contest. Can some other agent be called to my aid, such as lime, charcoal, or some other substance to exterminate it? Lime can be got at 20 cents a bushel, by drawing four miles. If that is good, how much should be applied to the acre? and would it be best as a top dressing or plowed in? If either of these agents would prove a sovereign remedy, you would confer a favor by giving the desired information. J. D. C.—*Locke, Cayuga Co., N. Y.*

Cheap Paint.—I find an inquiry in the Farmer from a friend in St. Thomas, U. C., for the best substitute for oil paint. I will give a recipe for a cheap paint, put on the base of my fence in the spring of 1848, which looks as well as oil paint at this time: Two quarts of new stone lime, slaked in water; dissolve two ounces of glue with water; then sift the lime in the glue water; then reduce with skim-milk; then add Venetian red, or any other color you choose, previously ground in oil. A very small quantity of any color will shade the above proportions. A. Martin.—*Nankin, Wayne Co., Mich.*

ADVERTISEMENTS,

To secure insertion in the Farmer, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. Terms—Two Dollars for every hundred words, each insertion, paid in advance.

CIDER MILL AND PRESS.

Hickok's Cider Mill and Press is considered now the best in use; simple in construction, portable (weighing but 275 lbs.), and not liable to get out of order. Warranted to work well, and give satisfaction. The first premium of the American Institute and Crystal Palace has been awarded to this machine. Drawing and description will be sent by addressing the agents for the sale, in New York. Price of mill and press, $40.

LONGETT & GRIFFING,
Sept. 1, 1854.—2t 25 Cliff street, near Fulton, New York.

AGENTS WANTED.
CHANCES FOR MAKING MONEY!

The publishers of a large list of highly entertaining, useful and popular Books, offer great inducements to 500 energetic and thorough-going business young men, to engage in the sale of these publications, in which any young man of good business habits may make FIVE TIMES the amount, over and above all expenses, of the average wages of Common School Teachers.

The MOST LIBERAL discounts are made to Agents from the list of prices.

The books command ready sales wherever they are introduced.

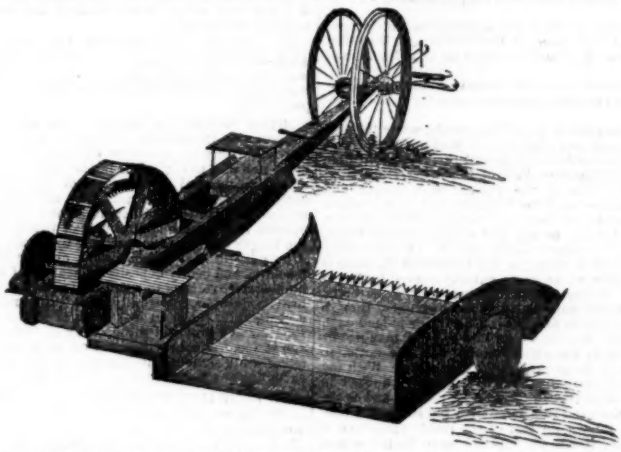
None need apply unless they wish to devote their whole attention to the business, and who cannot command a CASH CAPITAL of from $25 to $100, or give undoubted security for the amount of goods entrusted to them.

Full particulars in regard to terms, &c., will be furnished by calling on, or addressing, post paid,

WANZER, BEARDSLEY & CO.,
24 Buffalo Street, Rochester, N. Y.,
Or, ALDEN, BEARDSLEY & CO.,
June 1, 1854.—tf Auburn, N. Y., Publishers.

HUSSEY'S COMBINED REAPER AND MOWER,

MANUFACTURED BY T. R. HUSSEY & CO., AUBURN, CAYUGA COUNTY, N. Y.

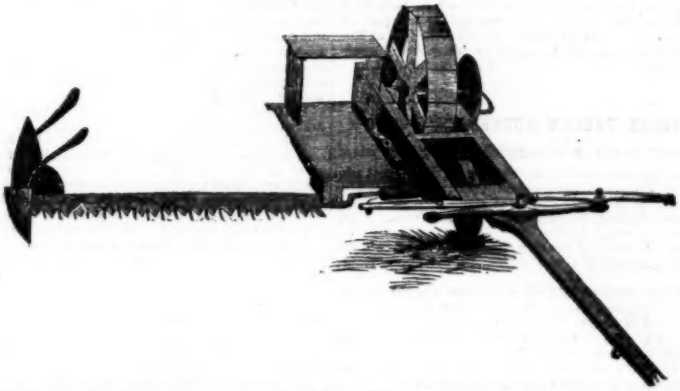


THE perfect satisfaction which the above-named Machine gave to every farmer who used one, both in Reaping and Mowing, last season, gives us renewed confidence in warranting them to be the best Machine for the purpose intended ever manufactured; and in consideration of the unequaled success attending the operation and sale of them last season, we have gone more extensively into the manufacture of them, and have a lot now on hand,

READY TO SUPPLY ORDERS.

All Machines sold by us are warranted to be built of the best materials, and warranted to work well, both for

REAPING AND MOWING.



☞We could append any number of certificates as proofs of the well working of the Machine, but we flatter ourselves that the reputation of them is so well established among the farming community that they are not required.

☞ All communications sent to us on the subject of Mowers and Reapers, will receive prompt attention.

July 1, 1854.—tf T. R. HUSSEY & CO., Auburn, N. Y.

PERUVIAN GUANO.

WE are receiving our stock of Peruvian Guano, for summer and fall supply, per ships Northern Crown, Leavanter and Antelope, and are now prepared to supply all that may be in want of this valuable manure, and request early application. Price, $55 per ton of 2000 lbs. When taken in lots of five tons and upwards, a discount will be made.

There are various substances now offering in this market for Peruvian Guano. To avoid imposition, be particular to observe that the genuine Guano has branded upon each bag—

No. 1.

PERUVIAN GUANO.

Imported by

F. BARREDA BROTHERS.

LONGETT & GRIFFING,

State Agricultural Warehouse, 25 Cliff street, New York.

July 1, 1854.—tf

MELENDY'S PATENT FRUIT-PICKER.

PATENTED JUNE 27, 1854,

IS the only implement yet invented with which Apples, Pears, Peaches, Cherries, &c., can be picked faster than by hand picking, and without the least injury to the fruit. Responsible Agents for the sale of the implements wanted in all parts of the country. Descriptive circulars, with cuts, mailed to all post-paid applications. Manufactured and sold at wholesale and retail by J. MELENDY, PATENTEE, *and sole proprietor*, Southbridge, Mass.

August 1, 1854.—2t

CUTTER RIGHTS FOR SALE

WE will test our Hay, Stalk and Straw Cutter, patented November 8th, 1853, for speed, ease and durability, against any other in the United States. J. JONES & A. LYLE.

☞ For further information, address JONES & LYLE, Rochester, N. Y. February 1, 1854.—tf

McCORMICK'S REAPING AND MOWING MACHINE

I AM manufacturing 1500 Reaping and Mowing Machines for 1854, and farmers who want Machines are requested to send in their orders early. Last year I had not a supply, although I had 1500 in the market.

I offer my large experience (both in this country and in Europe) for the last fifteen years and more in this business, as the safest guarantee the farmer can have in the purchase of a Machine of this kind.

Deeming it useless to insert long advertisements in the newspapers, I shall be pleased to furnish applicants with my printed Circular.

Some important improvements have been made, while the Machine will be found as simple and efficient as a Machine of the kind can oe. The important points that will present themselves in these Machines, will be Perfect Simplicity, Ease of Repairing, Durability, and Adaptation to the Wants of the Farmer as a Reaper and Mower. I shall continue the use of the Wrought-iron Beam, which will be found very important in mowing, because of the friction upon the ground, and liability to tear and wear a Wooden Beam, or any sheet-iron lining that may be used upon it. Another very important advantage which I claim for my Combined Machine is that it can be readily changed so as to cut any desired height of stubble as a Reaper or Mower by simply removing three bolts. This principle will be found wanting in other machines, though valuable upon rough ground, or for mowing barley or lodged oats, timothy seed, clover seed, &c., or where the ground may not be firm, and there be liability in the wheels to sink and the cutter to be brought in contact with the ground, sand, gravel, &c. With my Combined Machine the farmer has the advantage of a Reel in mowing, which admits of a slow walk to the horses, and is especially valuable when the wind interferes with the successful operation of the Machine. I have no fear of the result upon trial of the Machine with others; it has no superior as a Reaper or as a Mower.

The public are now especially cautioned to beware of SEYMOUR & MORGAN'S "NEW YORK REAPER." These men have been selling my Machines, *though under an injunction the second time since the re-issue of my Patent in April last*, in addition to a verdict of $20,000 for past infringements.

☞ Sundry other parties will soon be held to strict account for their infringements under this Patent, which makes them just as liable to be enjoined as Seymour & Morgan.

The Machine will be warranted equal to any other, both as a Reaper and as a Mower; and it will be forwarded to any part of New York or Canada, if ordered of THOS. J. PATERSON, at Rochester, N. Y., who wants Agents to sell it in some of the unoccupied wheat districts. C. H. McCORMICK.

May 1, 1854.—tf

GENESEE VALLEY NURSERIES.

A. FROST & CO. ROCHESTER, N. Y.,

OFFER to the public the coming spring one of the largest and finest stocks of Fruit and Ornamental Trees, Shrubs, Roses, &c., in the country. It in part consists of standard Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine and Quince Trees. Also, Dwarf and Pyramid Pears and Apples.

SMALL FRUITS.—Native and Foreign Grapes, old and new sorts of Currants, finest Lancashire Gooseberries, Strawberries, Raspberries, &c. &c.

The ORNAMENTAL DEPARTMENT comprises a great variety of Deciduous and Evergreen Trees, Shrubs, Vines and Creepers, which includes upward of of 300 varieties of the Rose.

BEDDING PLANTS.—150 varieties of Dahlias, a large collection of Verbenas, Petunias, Helictropes, &c. &c.

Priced Catalogues of the above will be mailed to all applicants enclosing a postage stamp for each Catalogue wanted, viz:

No. 1.—Descriptive Catalogue of Fruits, Ornamental Trees, Shrubs, &c.

No. 2.—Descriptive Catalogue of Green House and Bedding Plants of every description, including every thing new which may be introduced up to its season, will be published in March each year.

No. 3.—Wholesale Catalogue, published in September.

February 1, 1854.—*tf*

THE GREAT RED DRAGON,
OR THE MASTER KEY TO POPERY,

BY ANTHONY GAVIN,

Catholic Priest, of Saragossa, Spain.

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TO sell the work which is now ready, and surpasses in detail and interest any other work on the subject of Popery ever issued. The terrible revelations which it contains will startle every Protestant with horror, as coming from one who was a participator in the bloody deeds, and who has had the best opportunity ever possessed by any man to unveil the mysteries of the Great Babylon of Popery. Finely illustrated. Address, immediately,

SAMUEL JONES, Publisher,

August 1, 1854.—3t 83 Washington street, Boston, Mass.

ROCHESTER AGRICULTURAL MACHINERY.

THE undersigned, who has been many years engaged in the extensive manufacture of various kinds of Agricultural Machinery, particularly Horse Powers, Threshing Machines, Separators, &c., has now added to his business the manufacture of several valuable implements—

1st. ATKINS' AUTOMATON OR SELF-RAKING REAPER AND MOWER; an implement well known at the West, which has been advertised for the last three months by Mr. WRIGHT of Chicago, in the GENESEE FARMER, to which the reader is referred for particulars.

Atkins' Self-Raking Reaper.—This machine was in successful operation on the farm of B. B. KIRTLAND, Greenbush, on Wednesday and Thursday of last week, and elicited the approbation of every one who saw it. It is impossible to convey in words any idea of the mechanical construction of the raking attachment. The cutting apparatus does not differ materially from that of other reapers, but at regular intervals an arm, to which a rake is attached, extends itself to the farther part of the apron, slowly draws itself the length of the apron, pressing the grain against a plate, where it holds it till it swings around a quarter of a circle, clear of the machine, and coolly deposits its neat sheaf on the ground, when it immediately returns to repeat the process. The machine is not of heavier draught, apparently, than other machines—and it does its cutting fully equal to any we have seen work. While it has no superior as a practical thing, it is a curiosity worth quite a pilgrimage to see. It comes the nearest to being instinct with life and manifesting signs of intelligence, of any piece of mechanism, not excepting the steam engine.—*Country Gentleman.*

2d. BURRALL'S GRAIN REAPER.—At the great trial of Reapers in the harvest field, at Geneva, N. Y., in July last, the Committee appointed by the State Agricultural Society, took into consideration its simplicity, durability, the manner in which it performed its work, and the ease with which it can be managed, when, in competition with eleven other Reapers, they unanimously awarded it the *first prize of* $50 *and diploma.* The Committee in their report remark that "T. D. BURRALL'S Machine performed its work in the most admirable manner; the gavels were well laid; the workmanship and materials were excellent; the circular apron for side delivery, the balance wheel and an arrangement to elevate the exterior edge of the apron, are valuable features, &c., &c.

This Reaper has been thoroughly tested practically, during the last two years, in Western New York. All the Reapers sent out have given complete satisfaction. We would say to those who are not convinced of the superiority of this Reaper over all others, that we have still more facts which we could not exhibit for want of space, and which we would be pleased to exhibit to all such as may call upon us. We would observe that experience with this Reaper will bear us out in saying that

1. It cuts grain of all kinds, in all conditions, without clogging, and may be worked by oxen or horses.
2. It cuts at any height required, by a few moments' change.
3. It discharges the grain in the rear, if preferred, like HUSSEY'S; or at the side, like M'CORMICK'S; leaving room for the team and machine to pass again without treading on the grain. This change is made by means of an extra apron, (attached in a moment,) from which the grain is laid in a better condition for drying and binding, and with much less labor to the raker than has ever been done before.
4. It has a Balance Wheel, which corrects the irregularity of the crank motion, and gives a quiet and uniform movement to the machine.

This Reaper has been so thoroughly tested in Western New York, where wheat grows as stout or stouter than in any other part of the country, that there is now no doubt but that it will give entire satisfaction to all who may purchase. There is, however, no risk in buying. The purchaser can rest assured that when his harvest comes, he has something that will perform. It is not like an untried thing, or a thing that has not been tried in the Genesee country, where wheat grows large and stout, and may fail, and in failing, make the purchaser enough expense in money and trouble to considerably more than have purchased something reliable at first. Experiments cost too much money, time and trouble, to be carried on in the hurry of harvest time, and by those who ha e crops to secure. We say, therefore, if you buy a Reaper, buy one, the reliability of which has been demonstrated by thorough, practical experiment, and if possible, in your own neighborhood, and on soils producing similarly to your own.

3d. DANFORTH'S REAPER AND MOWER COMBINED, which took the first premium at the Agricultural Fair in Chicago, 1852.

4th. KINMAN'S PATENT FLOUR PACKER.

5th. CHILDS' GRAIN SEPARATOR.

6th. WOODBURY'S MOUNTED HORSE POWER AND GRAIN SEPARATOR.

7th. HALL'S SIX FEET DOUBLE PINION HORSE POWER, which is unequaled for strength, easy working and durability.

8th. IRON OR PLANET HORSE POWER.

9th. PITT'S PATENT THRASHER AND SEPARATOR, which has been in use for 17 years.

All of which will be sold at the lowest manufacturers' terms by

June 1, 1854.—tf JOSEPH HALL, Rochester, N. Y.

VALUABLE REAL ESTATE IN DINWIDDIE CO., VA., FOR SALE.

A RARE opportunity for investment is now presented to capitalists or a company desiring to combine hotel keeping with mercantile and general mechanical pursuits.

The multiplicity of my professional and private engagements alone induces me to offer for sale one-half or the whole of the extensive and commodious Hotel and appurtenances at Dinwiddie Court House—including the land which surrounds the Court House, about **400 acres**, the offices and residences, together with all the numerous privileges connected with the property.

The Hotel has recently been thoroughly repaired, painted, newly enclosed, and every way fitted out for the accommodation of the public. It is situated at the county seat, immediately on the Boydton and Petersburg Plank Road, within 14 miles of the city of Petersburg and 36 of the city of Richmond. The South-side Railroad passes within 8 miles, and the Petersburg and Raleigh Railroad within 11 miles, of this place. This establishment, with the offices and residences, the store and blacksmith's shop, the extensive stables in complete repair, and capable of accommodating 200 horses, a spacious and unfailing ice-house, and all other convenient out-houses attached, together with a Church and a Male and Female Academy on the land, an extensive Foundry now in process of erection by an intelligent and judicious company, and a number of handsome residences adjacent, owned by the subscriber and others, already constitutes an attractive village, which, by enlightened liberality on the part of the owner, in inviting and encouraging persons engaged in the different commercial and mechanical pursuits to settle here, may be quickly made an important place of business and greatly tributary to all the leading interests of the city of Petersburg.

The Hotel has a large and rapidly-increasing patronage; it is a regular eating-house for the stage passengers. The Post Office is kept here. On court and all other public days, the dining-room, bar and stables are liberally encouraged, and yield large and certain profits. The vicinity of this hotel to Petersburg, its ease of access from every quarter, the well-established healthfulness of the place, together with the agreeable society around, render it a pleasant summer retreat for families and invalids from the heat and dust of the cities. The tract of land is chiefly in woods, and contains an inexhaustible supply of timber for plank, rails and fuel. The open land is improved and in regular cultivation. The soil is naturally very good, and susceptible of the highest degree of improvement.

The place is fully supplied with the purest water, from a well and a number of springs. The almost unexampled success of the different works of internal improvement passing through this country, together with the general prosperity of the county, has greatly enhanced the value of all lands and places of business contiguous to these improvements; and at no place has property more rapidly or steadily advanced than on this Plank Road, in the neighborhood of Dinwiddie Court House, and between this place and Petersburg. Each successive sale of real estate shows a striking advance upon previous sales, and admonishes purchasers to buy at once.

The confident opinion of the most judicious and prudent business men is, that this property has already increased in value, and that its prospective value, looking to—*as a certain event*—the speedy development of all its advantages, comprising as they do all the elements of an important village, is incalculably great. Nothing could tempt me to forego the certain great pecuniary advantage that will assuredly accrue in a few years to an enterprising owner of this property, but the earnest desire on my part to diminish the cares of business, and to devote my energies in their accustomed and more appropriate sphere.

I should prefer to sell one-half of this property to an enterprising and capable business man or company, who would take charge of the whole concern; but if desired by purchasers, I will sell the whole. Possession can be had whenever the sale is made, or at the end of the present year, as may be desired. The terms will be made liberal and accommodating as to time. By the punctual payment of interest as it accrues the deferred payments may run for a series of years.

The property will be shown by Major Anderson or me, both residing on the premises, to any one desiring to see it. Letters directed to me at Dinwiddie Court House will be promptly answered. Should this property not be sold before the EIGHTEENTH OF SEPTEMBER next (Dinwiddie county court day), of which due notice will be given through the papers, one-half of the whole of the property will then and there be offered to the highest bidder at public auction. E. H. SMITH.

☞ I have also for sale several most desirable tracts of land, varying in distance from 6 to 16 miles from Petersburg, all on or near the Boydton and Petersburg Plank Road. Among them are several well-fixed farming tracts, with residences and all necessary out-houses. The remainder are valuable timber lands. A circular, describing these lands, will be sent to any one wishing to purchase. These lands will be sold low, and on accommodating terms.

E. H. SMITH.

☞ The South-side Democrat, Richmond Whig and Enquirer, Washington Sentinel and National Intelligencer, and Genesee Farmer, will please publish once a week until day of sale—and the Baltimore Sun and New York Herald copy once a week until forbid—and send their accounts for payment to H. H. Hobbs, Esq., P. M., at Dinwiddie Court House. E. H. S.

September 1, 1854.—1t

AYER'S
CATHARTIC
PILLS,

FOR THE CURE OF

Costiveness, Bilious Complaints, Rheumatism, Dropsy, Heartburn, Headache arising from a foul stomach, Nausea, Indigestion, Morbid Inaction of the Bowels and Pain arising therefrom, Flatulency, Loss of Appetite, all Ulcerous and Cutaneous Diseases which require an evacuent medicine, Scrofula or King's Evil. They also, by purifying the Blood and stimulating the System, cure many complaints which it would not be supposed they could reach, such as Deafness, Partial Blindness, Neuralgia and Nervous Irritability, Derangements of the Liver and Kidneys, Gout, and other kindred complaints, arising from a low state of the body, or obstruction of its functions.

Read the following professional report from A. A. Hayes, M. D., Assayer of the State of Massachusetts, and one of the best practical chemists in the world. He is a scholar whose reputation and usefulness are, like Liebig's, of Germany, an honor to his country:

DR. J. C. AYER, Lowell, Mass.—My dear Sir:—I have made a careful analyses of your Pills, with the formula for their preparation. They contain the active principles of well-known drugs, isolated from inert matter, which plan is, chemically speaking, one of great importance to their usefulness. It not only gives the concentrated virtues of medicines, but insures great activity, certainty, and uniformity of effect.

Your use of "Ricmine," the active principle of the castor bean, is new to me, and your course of procuring it by chemical analysis from the bean is certainly valuable.

Your Pills coniain no metallic or mineral substance, but the virtues of vegetable remedies, in skillful combination.

Respectfully, A. A. HAYES.

16 Boylston street, Boston, 20th August, 1853.

Boston, 10th October, 1853.

This may certify that Dr. A. A. Hayes is a practical chemist of this city, whose reputation and eminence in his profession is well known to us, and we have implicit confidence in his opinion.

EDWARD EVERETT,
Rx-Secretary of State, and Senator of the United States.
ROBERT C. WINTHROP,
Ex-Speaker of the House of Representatives of the United States.
ABBOTT LAWRENCE,
American Minister Plenipotentiary to the Court of Great Britain.
JOHN B. FITZPATRICK,
Catholic Bishop of Boston.

Read the following, from the celebrated delineator of negro melodies and negro characters:

New York, 17th Nov., 1853.

DR. J. C. AYER—Dear Sir:—I take much pleasure in informing you that I have derived great benefit from the use of your medicines, and can most cheerfully recommend your Cathartic Pills to all who need such a remedy. They are the best family medicine I have ever employed, and must be esteemed by the public when their virtues are known. GEO. H. CHRISTY,
Of the Negro Minstrels, 444 Broadway, New York.

The following, from an eminent practicing physician in the South, shows how the Pills are appreciated by the medical profession; and as the writer is also Postmaster, we have conclusive evidence that he is a responsible and respectable man:

Hamilton, Miss., Nov. 9, 1853.

DEAR SIR:—Mr. Blair, of Columbus, supplied me with your Cathartic Pills and formula, and I have since used them in my practice with more than ordinary results. They exhibit excellence in their action which betoken no common remedy, and I can pronounce them decidedly the surest and best aperient we have ever been able to procure in this section. They are a desideratum long felt in our prescriptions, and have proved themselves to be the very article I have many years sought for in vain. Trusting you will not fail to supply the community with a discovery which must be the means of immense benefit to the sick,

I am, sir, with respect, yours, &c.,
R. A. MINNIS.

PREPARED BY JAMES C. AYER, ASSAYER AND PRACTICAL CHEMIST, LOWELL, MASS.

☞ Price 25 cents per Box. Five Boxes for $1.

☞ Sold by LANE & PANE, and W. PITKIN & SON, Rochester; DEMAREST & HOLMAN, Buffalo; and by all Druggists every where. September 1, 1854.—2t

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To whom it may concern: AUBURN, May 16th, 1853.

We are personally acquainted with many of the Officers and Directors of the Tempest Insurance Company, located at Meridian, Cayuga county, N. Y. In our opinion they are among the most wealthy and substantial class of farmers in this county.

J. N. STARIN,
ELMORE P. ROSS,
THOMAS Y. HOWE, Jr.

The above gentlemen will be recognized as the Cashier of Cayuga County Bank, Auburn; Postmaster, Auburn; and Ex-Member of Congress, Auburn, Cayuga county, N. Y.

February 1, 1854—1y

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Address LEE, MANN & CO.,
Rochester, N. Y.

Office on Buffalo street, opposite the Arcade.
May 1, 1854.—tf

GUANO—NOTICE.

AS there is a substance now selling by some dealers in this city and Brooklyn for No. 1 Peruvian Guano, we caution the agricultural public who may purchase Peruvian Guano this season to observe that every bag of the genuine article will have the following brand:

No. 1.
PERUVIAN GUANO.
Imported by
F. BARREDA BROTHERS.

The price is now established for this season at $55 per ton of 2000 lbs. When taken in lots of five tons and upwards, a discount will be made. LONGETT & GRIFFING,

State Agricultural Warehouse, 25 Cliff street, New York.
September 1, 1854.—2t

SUPERIOR TREES, PREMIUM STRAWBERRIES, &c.

WM. R. PRINCE & CO., Flushing, wishing to clear off 50 acres of their Nurseries through which the Railroad passes, will sell their superior Fruit and Ornamental Trees and Shrubbery, including Evergreens, at very reduced prices, in quantity.

Also, an unrivaled collection of Strawberries, Bulbous Flowers, Pæonies, &c., at the reduced prices of their Catalogue for 1854-5, which will be sent to applicants. A convenient credit will be allowed, where payment is sure.

N. B.—100,000 Pears, of all sizes, at low rates.
September 1, 1854.—2t

FRUIT AND ORNAMENTAL TREES, &c. &c.

THE subscribers offer for sale this coming fall a large assortment of Fruit and Ornamental Trees, Shrubs, &c. &c. A liberal discount made to dealers.

JOHN DONNELLAN & NEPHEWS,

Rochester and Handford's Landing Nursery (one mile north of the city, on the Charlotte Plank Road).
September 1, 1854.—tf

MERINO SHEEP.

THE subscriber will sell a few Spanish Merino Sheep—bucks and ewes—of undoubted purity of blood. He will also dispose of a part of his stock of imported FRENCH Merinos.

Gentlemen purchasing from this flock can have the sheep forwarded to the principal Western towns at my risk.

Sept. 1, 1854—1t* R. J. JONES, Cornwall Vt.

"FINE STOCK."

PREMIUM AT OHIO AND INDIANA STATE FAIRS.

PURELY bred FANCY FOWLS, fifteen varieties. Also, LOP-EARED RABBITS, and SUFFOLK and ESSEX PIGS, bred from the best importations. W. S. LUNT,

September 1, 1854.—1t Findlay, Hancock Co., Ohio.